CALLBACK ASRS

From NASA's Aviation Safety Reporting System

Number 309 June 2005

What Would You Have Done

As in previous "interactive" issues of Callback, readers are once again given the opportunity to consider an appropriate course of action for a given situation. The actions that were actually taken by the reporters of these incidents are found on the reverse of this Callback issue. Bear in mind that the reported action may or may not represent the best response to the situation. Our intent is to stimulate thinking, discussion, and training related to the type of incidents that were reported.

Situation #1: The propeller struck the sand and stopped the engine."

After experiencing some difficulties landing on a remote beach, this C172 pilot had to decide whether or not his aircraft was fit to fly out.

■ *... I was eager to explore more landing areas nearer to a good fishing hole. After a few exploratory low passes, I saw what I thought was a suitable landing area. As I set the main wheels down, I held full aft elevator to slow the aircraft. When I lost elevator effectiveness the nosewheel touched down and began to sink in the sand. In a few more seconds the aircraft came to a stop with the nosewheel buried in the sand. The propeller struck the sand and stopped the engine. My passenger and I were able to free the aircraft and pushed it a few feet toward the sea to more stable soil. I inspected the propeller and it did not appear to be bent. I started the engine and noticed a slight vibration that smoothed out when full power was applied.*

What would you have done?

Situation #2: "A decision had to be made."

This non-instrument rated, Cessna 206 pilot was faced with a classic weather decision: press on in hopes that conditions would improve, or accept the inconvenience of an enroute stop.

■ *I contacted the local Flight Service Station and requested information about the weather from [departure airport] to ZZZ, my destination. I was informed that a stalled stationary front included ZZZ and current conditions there were IFR. I departed VFR and tracked the weather via numerous AWOS/ASOS reports during flight. Approximately 100 miles south of ZZZ the weather was deteriorating.*

I had to catch a commercial flight at my destination and, although it was still IFR there, I believed that conditions would surely improve. Enroute, YYY was reporting Marginal VFR and a decision had to be made whether or not to continue to ZZZ.

What would you have done?

Situation #3: "I can make this."

This A320 First Officer was prepared to abandon an unstable approach, but then it started to look like things might work out.

■ *...ATC gave us a close-in turn from downwind to base leg in visual conditions. The Captain and I both anticipated a "slam dunk" from Approach Control so we had slowed to approximately 170 knots and set flaps 2. The situation was further compounded when Approach told us to maintain 5,000 feet for traffic in the area. We were cleared for the visual four miles from the runway at 5,000 feet. I began a very rapid descent with gear down, flaps 3, and speed brakes full. I was determined to give this my best effort, however I mentally prepared myself for a go-around. I told the Captain that at 1,000 feet I thought we should evaluate the situation. At around 1,000 feet I began to capture the glideslope, prompting me to continue the approach even though the airspeed was still high. At around 500 feet airspeed began to decrease, further tempting me to think, "I can make this!"*

What would you have done?

Situation #4: "The Cessna was between him and the airport."

Faced with one aircraft that needed to make an emergency approach and another aircraft that presented a traffic conflict, this Air Traffic Controller had to orchestrate a solution.

■ *The Mooney (9,000 feet) was northbound.... The Cessna (8,000 feet) was eastbound. When the Mooney was three or four miles south of the Cessna, he indicated that he had an engine problem and wanted to land at ZZZ. This required that he descend visually through the Cessna's altitude or be vectored away for standard separation. The airport was only 10 miles away and the Cessna was between him and the airport. The winds were strong from the north, so he wanted to set up for an approach. I called out the traffic twice and kept the Mooney level, hoping he would see the Cessna. I felt that the Mooney needed me to get him down, so he could set up his approach.*

As the controller, what would you have done?

ASRS Alerts Issued in May 2005

Subject of Alert	No. of Alerts
Aircraft or aircraft equipment	4
Airport facility or procedure	3
ATC procedure or equipment	1
Chart, Publication, or Nav Database	2
Maintenance procedure	4
Total	**14**

A Monthly Safety Bulletin from

The Office of the NASA Aviation Safety Reporting System,
P.O. Box 189,
Moffett Field, CA
94035-0189

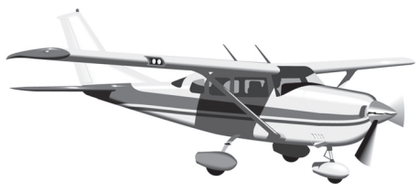
http://asrs.arc.nasa.gov/

May 2005 Report Intake

Air Carrier / Air Taxi Pilots	2408
General Aviation Pilots	854
Controllers	42
Cabin/Mechanics/Military/Other	174
TOTAL	**3478**

Situation #1: “The propeller struck the sand and stopped the engine.”

I decided that I would fly the aircraft home, because what little damage there was would not affect the airworthiness of the aircraft. When I returned the aircraft to the FBO where I had rented it they decided to send the prop off for balancing. They also removed the engine and sent it off for a mandatory tear-down and inspection. My biggest regret from this incident is that I allowed myself to explore and attempt less and less suitable landing areas to the point where I finally damaged a very nice airplane. At some point I should have set a limit for myself and not have landed a $100,000 airplane on the beach for fun. Taking off with a damaged engine and prop was also poor judgment.



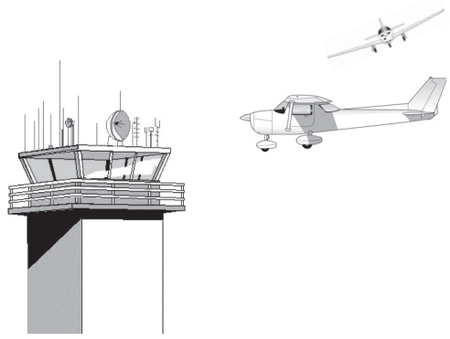
Situation #2: “A decision had to be made.”

I continued toward ZZZ.... Conditions remained Marginal VFR until 30-40 miles south of ZZZ. The weather rapidly deteriorated and I had to be vectored around a thunderstorm. I knew at this point that I had made a wrong decision. I was now risking my life and was wishing I had landed at YYY.... After discussion with Approach Control at ZZZ and with fuel becoming a consideration, I was vectored to an ILS approach at ZZZ. With the help of an experienced pilot giving direction, a safe landing was made.

I have been flying for a number of years. I learned a valuable lesson on how fast weather can close in; how stupid it is to “assume” that the weather will clear. I used very poor judgment and made a decision I feel was influenced by the fact that I had a commercial plane to catch....

Situation #3: “I can make this.”

I didn’t take the bait. I set TOGA (Takeoff and Go Around) power and performed a go-around at 500 feet. ATC vectored us back for a normal landing. This situation showed me how easy it is to continue with an unstable approach because, when you begin to catch up with the situation, you encourage yourself to continue further and further down that unstable path which can lead to an unstable landing...or worse. I kept myself from completely falling into the trap by mentally preparing for the go-around ahead of time and not committing to the landing until stable approach parameters were met. I also believe that we sometimes accept instructions from ATC that may be difficult to perform because we don’t want to cause a problem or look like we aren’t good enough to handle the situation.



Situation #4: “The Cessna was between him and the airport.”

I declared an emergency for the Mooney as I felt time and distance were becoming critical. I descended him and it all worked out fine in the end. But the aircraft should have either indicated he was OK with being maneuvered at altitude for the traffic, or taken his own decision to descend. I felt trapped by the rules. The pilot should have been more forceful if he needed lower or been more explicit that he could wait for the traffic.

Yes, a controller can declare an emergency for the pilot. And speaking of pilots’ reluctance to use the “E” word, that will be the subject of an upcoming issue of CALLBACK.

CALLBACK

From NASA's Aviation Safety Reporting System

Number 319 June/July 2006

What Would You Have Done?

It's time for another "interactive" issue of *CALLBACK*, in which readers can put their hangar flying wisdom to the test. The front page of this issue describes various situations encountered by ASRS reporters. On the back page, you will find the responses actually taken by the reporters of these incidents. Keep in mind that the reported response to the incident may, or may not, represent the optimal solution to the problems described. We hope that these reports will stimulate your thinking and imagination as you "fill in the blanks."

Situation #1: "We were in a diving right turn…"

While focusing on cockpit communications duties, this flight instructor experienced a disorienting problem:

■ *We departed on a dual instructional flight on a Tower Enroute Control IFR flight plan. The IFR student was flying the aircraft. I was working the navigation and communication radios. We were level at 4,000 feet MSL and my high-time student looked comfortable and in control of the aircraft. While being vectored into a 180-degree turn to intercept the final approach course for our destination…we encountered a small amount of turbulence and my student over-controlled the aircraft... During this time I was reading back our new heading and setting the radios for the approach. Several seconds passed. When I looked over, we were in a diving right turn and were well below our assigned altitude.*

What would you have done?

Situation #2: "No corrective action [was] taken by the Developmental"

How far should an instructor let a training situation go before intervening for safety reasons? Here is how that dilemma developed for an Air Traffic Controller:

■ *Aircraft X was southbound via the airway enroute to ZZZ in level flight at FL310. Aircraft Y was northbound direct ZZZ1 at FL320. On the job training was in progress with Developmental Controller working the radar position. I was instructing. Traffic complexity was increasing. As data blocks became cluttered over ZZZ1, the Developmental requested the aid of a Handoff Controller. As the Handoff Controller was joining the sector, the Developmental issued a descent clearance to Aircraft Y to FL300. I advised him to be aware of Aircraft X. Several seconds lapsed with no corrective action taken by the Developmental…*

What would you have done?

Situation #3: "The fuel quantity indicator failed"

An MD-80 flight crew had to make an on-the-spot decision when the fuel quantity indicator failed shortly after takeoff:

■ *Shortly after departing ZZZ and leveling at FL310, the fuel quantity indicator failed. It indicated erratic quantities in all 3 tanks. It seemed to enter a sort of maintenance test mode, at times displaying 3000-3000-3000, and then indicating rapidly changing numbers up and down (several thousand pounds). It displayed a series of dashes in all 3 windows at times and the gross weight window displayed rapidly changing values as well. The indicator would not work on either channel A or B. Consideration was given to returning to ZZZ….*

What would you have done?

Situation #4: "Iguanas had moved on the runway"

A species of iguana found in the Caribbean, where this incident occurred, are usually between four and six feet in length when fully grown, and can present a reptilian hazard to landing aircraft:

■ *After going missed for an iguana on the runway, we were revectored for the visual. ATC advised that more iguanas had moved on the runway at taxiway Y. He was unable to issue a landing clearance, and [asked us] to state our intentions…*

What would you have done?

Situation #5: "I could feel a huge force trying to open the door"

A cabin attendant struggled to prevent a passenger agent from opening the armed door on a B757 and deploying the slide.

■ *As we were taxiing in, the taxi was very slow, my window at door 1R fogged over and I could not see out clearly. We stopped and I was waiting for the seatbelt sign to go off before disarming [door] 1R. Immediately, at the same time of stopping, I heard and saw the door handle at 1R being opened. I released my seatbelt and grabbed the door handle with both hands, while shouting 'Stop! Stop! The door is armed!' I could feel a huge force trying to open the door and could barely hold the handle down…*

What would you have done?

ASRS Alerts Issued in May 2006	
Subject of Alert	**No. of Alerts**
Aircraft or aircraft equipment	10
Airport facility or procedure	5
ATC procedure or equipment	5
Company policy	1
Chart, Publication, or Nav Database	2
Total	**23**

A Monthly Safety Bulletin from

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94035-0189

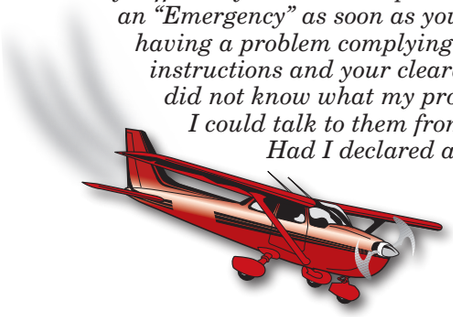
http://asrs.arc.nasa.gov/

May 2006 Report Intake	
Air Carrier/Air Taxi Pilots	2232
General Aviation Pilots	844
Controllers	95
Cabin/Mechanics/Military/Other	228
TOTAL	**3399**

Situation #1: "We were in a diving right turn…"

■ *I immediately took control of the airplane and recovered from the unusual attitude. I found the aircraft out of trim and difficult to control from the right seat. From my preflight weather briefing I knew that we could sort out our problems by climbing to VFR conditions on top of the clouds. I told Approach that we need to climb…We then received clearance [for] a climb to 10,000 feet. We broke out of the clouds at 8,000 feet MSL and were able to verify that all systems were functioning properly and requested an IFR clearance back to our departure airport. After landing, I was asked to call the TRACON, which I did, and explained my unusual attitude and instrument problem.*

The lessons I have learned from this are never take your eye off even your most competent student and declare an "Emergency" as soon as you realize you are having a problem complying with the controller's instructions and your clearance. The controllers did not know what my problems were until I could talk to them from the ground later. Had I declared an emergency, they [ATC] would have understood that I needed time and space to reorganize the cockpit for safe IFR flight.



Situation #2: "No corrective action [was] taken by the Developmental"

■ *I took over the frequency to issue separation vectors. Aircraft X advised descending due to TCAS RA and Aircraft Y advised they were climbing. I issued a lower altitude to Aircraft X and sharp turns to both aircraft, but standard separation was not maintained. Contributing factors were rapid and sudden increase in complexity, supervising all controllers at the sector and the supervisor observing us directly, data block clutter at the ZZZ1 VORTAC…and my momentary reluctance to take the sector from a Developmental who I felt was near certification and needed to 'work through' the situation…*

Situation #3: "The fuel quantity indicator failed"

■ *Since fuel flow gauges and associated fuel used indicators were working normally and could be compared with the flight plan, and weather at destination was good, it was decided to continue to ZZZ1. A discussion of this problem with an MD80 instructor pilot was desired to validate our decision to continue, since a second abnormal (i.e., engine failure, fuel leak, abnormal fuel transfer between tanks, weather deterioration at destination, etc.) would make the inoperative fuel quantity indicators critical. We contacted Maintenance Control and advised them of the problem and asked to have Dispatch patch us through to an MD80 Check Captain or at least the Flight Operations Duty Officer. Maintenance Control told us they (Maintenance) were comfortable with us continuing and that the Dispatcher was listening, and he/she was comfortable with it as well…About 15-20 minutes after that, we got an ACARS message that the Flight Operations Duty Officer had been contacted and that he/she agreed we should continue to ZZZ1.*

Situation #4: "Iguanas had moved on the runway"

■ *…With sufficient useable runway available prior to taxiway Y and our weight checked, I felt that a safe landing could be executed. ATC said to land at [our] own risk due to iguana, and we landed and cleared at taxiway X.*

Situation #5: "I could feel a huge force trying to open the door"

■ *Fortunately, we had a commuting company First Officer (in uniform) sitting in 1A who heard my warning to the Customer Service agent trying to force open the door. He jumped up and grabbed the handle and I shouted through the cockpit door while pounding on the door: 'Tell them the door is armed!' I then disarmed the door while the First Officer held the handle so as to not blow the slide… Customer Service did not clear the fogged-over door window which would have given them a visual OK/all clear to open confirmation…along with the requirement that the door be cracked first before attempting to open….Whew, that was a close one!*

Meet the Staff

Harvey "The Hammer" Hartmann

Harvey Hartmann joined the ASRS staff in January 2003 as an Aviation Safety Analyst. As the ASRS Alert Message Coordinator, he is responsible for processing alert messages that are sent to the FAA and other organizations. Harvey also analyzes reports submitted to the program by air traffic controllers, GA pilots, and others.

Harvey brings 36 years of experience as an air traffic controller to his duties at ASRS. He was Staff Officer at the Northern California TRACON (NCT) and San Francisco Bay TRACON; a Supervisor at Bay TRACON, Los Angles Tower, and Brown Tower; and an air traffic controller at several California air traffic control facilities. Prior to his FAA experience, he was in the military for four years.

In addition to all of his contributions to "this old house" at ASRS, Harvey spends his time away from work renovating houses and undertaking remodeling chores.

CALLBACK

From NASA's Aviation Safety Reporting System

Number 330 June 2007

What Would You Have Done?

As in previous "interactive" issues of *CALLBACK*, readers are once again given the opportunity to consider an appropriate course of action for a given situation. The actions that were actually taken by the reporters of these incidents are found on the reverse of this *CALLBACK* issue. Bear in mind that the reported action may or may not represent the best response to the situation. Our intent is to stimulate thought and discussion about the types of incidents reported.

Situation #1: "The Ride Then Went from Smooth to Violent"

For a Part 135 flight crew on a night flight, maintaining wings level became a full-time job with an autopilot malfunction, severe turbulence, icing, and crew member injury.

■ *Upon leveling off, the autopilot was not maintaining the 14,000 as selected. At 14,100, I reselected 14,000 and it corrected back down. Within seconds we were at 14,400 when I said to the Captain, "What is wrong with the autopilot, how come it won't hold altitude?" The Captain then disconnected the autopilot and pitched down to correct for the uncommanded climb. The ride then went from smooth to violent. I pulled both throttles back to idle as soon as I was able. It was so rough that it was impossible to control your arms and legs at times. Both of us hit our heads on the breaker panel...Initially I heard a hissing sound and thought decompression and mask. Then no mask, we are only [at] 14,000 feet. The hissing was a burst beverage container or my mask [was] out of its holster and purging, I don't know for sure. The Captain had a severe cut on his head and was bleeding...The airframe was covered with ice and a generator was offline.*

What would you have done?

Situation #2: "Both Front Windshields Became Fully Obscured in Oil"

An instrument-rated pilot of a single-engine aircraft departed the airport on a VFR pleasure flight. The pilot contacted Approach Control and requested clearance through Class B airspace...

■ *Clearance was obtained with an initial climb to 6,000 feet MSL. Approximately two minutes after leveling off at 6,000 feet MSL, began to notice fine oil mist on front windshields. Advised Approach of situation and requested immediate return to [departure airport]. Clearance received and executed 180-degree turn to right. Situation rapidly deteriorated, as both front windshields became fully obscured in oil. Aircraft engine oil pressure and temperature gauges [were] normal.*

What would you have done?

Situation #3: "I Noticed Numerous Lightning Strikes on the Skin"

A maintenance technician performing a service check on a B737 noticed numerous signs of lightning strikes, but was puzzled by the absence of a report from the flight crew.

■ *Aircraft came into ZZZ with a service check and some assigned work attached to the package. The book was clean and the flight crew reported no problems with the aircraft. I began my service check walkaround ground visual [inspection] of the aircraft and when I got to the left-hand forward fuselage area, I noticed numerous lightning strikes on the skin starting from the nose radome working aft past the wing-to-body fairing. Upon further investigation I found the left-hand forward alternate static port had 3 each lightning strikes which had welded the surface of the static port...In my experience this was a pretty good strike, and I had not even been up to the aft fuselage or the tail yet to look for the exit point...What was puzzling was the clean book with no pilot report from the flight crew. I assume with this much damage the flight crew would definitely know if they had been hit by lightning.*

What would you have done?

Situation #4: "The Aft Jumpseat had Broken..."

The presence of Flight Attendants in the cabin during landing ensures that in case of an incident (such as an aircraft evacuation), safety leadership will be provided to the passengers. When a Flight Attendant jumpseat breaks on a full aircraft, that Flight Attendant must be seated somewhere else for landing – but where?

■ *About 3/4 into our flight we received a call from the 'B' Flight Attendant. She informed us that the aft Flight Attendant jumpseat had broken and was now uninhabitable and unsafe to occupy. Apparently it had come off of a support mechanism and was leaning at a steep angle toward the floor. For this flight, we had 137 passengers, 3 Flight Attendants, and one rider on the fourth Flight Attendant jumpseat.*

We queried if the jumpseat would be safe to occupy for landing. They all agreed it would not be safe.

What would you have done?

ASRS Alerts Issued in April 2007

Subject of Alert	No. of Alerts
Aircraft or aircraft equipment	1
Airport facility or procedure	3
ATC procedure or equipment	4
Total	**8**

A Monthly Safety Bulletin from

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94035-0189

http://asrs.arc.nasa.gov/

April 2007 Report Intake

Air Carrier/Air Taxi Pilots	2455
General Aviation Pilots	863
Controllers	132
Cabin/Mechanics/Military/Other	171
TOTAL	**3621**

The Rest of the Story – The Reporters' Actions

Situation #1: "The Ride Then Went from Smooth to Violent"

■ *[The Captain] continued to fly and claimed to be OK... We reported our status with Center and I believe they declared us an emergency aircraft. As PNF I activated the aircraft's ice protection which worked well. We began load reduction [and] I ran the appropriate checklist for the generator off and it was restored. The remaining flight was unremarkable.*

I reviewed the flight log...and it indicated a maximum altitude loss of 2,000 feet. This is my biggest concern. Maintaining wings level was a full-time job during this event, with severe turbulence. I commend my Captain. I think good CRM probably saved our lives. During this event I found myself doing only the things which have been "overlearned." In the future I will pipe up and ask for deviations around all clouds when possible, and if anyone is ever injured in flight I will suggest the use of oxygen. We may need all the help we can get.

Situation #2: "Both Front Windshields Became Fully Obscured in Oil"

■ *[I] contacted Approach and requested priority handling to [departure airport]. Clearance obtained and then instructed to contact Tower. Contacted Tower and advised them of our situation. Tower wanted to know...which runway we requested...Requested Runway 25L and to roll the Crash/Fire equipment. Both front windshields still totally obscured in oil, and now canopy side windows becoming obscured in oil. Therefore requested Runway 30 due to the fact that it is the longest and widest runway at the airport, and is also served with an ILS approach. Forward visibility continued to be zero. Entered on left base for Runway 30, but had to extend... the downwind to lose altitude and airspeed to lower the landing gear at 100 mph...As aircraft slowed on final approach, oil clung to all windows. Forward visibility zero. Peripheral vision marginal. Attempted to open canopy window without success. Performed zero flap landing with power and minimal sink rate until aircraft landed. Aircraft stayed on the runway at all times, opened canopy, taxied off active runway and shut down engine.*

Situation #3: "I Noticed Numerous Lightning Strikes on the Skin"

■ *I initiated log page for the lightning strikes and log page for the conditional inspection due. I also initiated log page for the alternate static port damage...I ran a 3-day history and discovered that [the] aircraft was struck by lightning and reported the previous day. A conditional inspection was performed by contract maintenance with no defects noted and the aircraft returned to service. It then flew for the better part of two days before the service check here in ZZZ where it was caught. The aircraft was towed to the hangar line in the morning and they have since found a melted static wick on top of the vertical stabilizer and apparently it is now scheduled out of service for the next 3 days to repair the damage found.*

Situation #4: "The Aft Jumpseat had Broken…"

■ *The First Officer and I discussed having the 'B' Attendant and fourth rider sit in the cockpit jumpseats for landing. We both felt that this was the safest alternative. Of the 137 passengers, there were none authorized to sit in the cockpit. We decided to have the 'B' Attendant and fourth rider in the cockpit for landing for their safety.*

I did think of the fact that in the event of an evacuation, there would be no Flight Attendant at the rear of the aircraft. However, I felt that I needed to opt for the safety of the Attendants during the landing and rollout portion of the flight. I did not want them just holding onto something in the back for the unlikely event of an evacuation.

We arrived [at destination] uneventfully and the aft jumpseat was deferred via the MEL. Additionally, we informed Ground Operations of our situation.

This situation probably had no perfect solution – but what would you have done?

Meet the Staff

Rich Bourque

Richard ("Rich") Bourque joined the ASRS staff as an Aviation Maintenance analyst in April 2007. Rich has a long-time association with the ASRS program as a maintenance representative on the NASA ASRS Advisory Subcommittee. In his years with the ASRS Advisory Subcommittee, Rich helped develop the ASRS maintenance reporting form and encouraged aviation maintenance technicians to support and use the ASRS program.

Rich has a long and distinguished career as an Airframe/Powerplant Inspector, mechanic, and leader of a Local Lodge of the International Association of Machinists and Aerospace Workers. In his early maintenance career, he served with the U.S. Marine Corps, an East Coast FBO, and Western Airlines in San Francisco. In 1985 he joined United Airlines in San Francisco as an Airframe/Powerplant mechanic, eventually rising to the position of Inspector.

During this same period he held a variety of offices with Local Lodge 1781 of the IAMAW—including President. Rich retired from United in April 2007.

Outside ASRS, Rich enjoys his family, politics, music, natural sciences, ice hockey, his dog, motorcycles, gardening, live theatre, horse riding and racing—and always airplanes.

CALLBACK

From NASA's Aviation Safety Reporting System

Number 343 July 2008

What Would You Have Done?

In "interactive" issues of *CALLBACK*, readers are given the opportunity to consider an appropriate course of action for a given situation. The front page of this issue describes various situations encountered by ASRS reporters (the beginning of the story). On the back page, you will find the actions actually taken by the reporters to resolve these incidents (the rest of the story). Keep in mind that the actions described by reporters may not represent the safest responses to situations. Our intent is to stimulate thought and discussion about the types of incidents reported.

Situation #1: "There Was No Right Main Gear in Sight" (GA Pilot)

■ *This was a photo flight in a rental aircraft departing with fuel to the tabs...There was a loud 'clunk' noise as I was communicating with Tower. Instruments indicated everything was normal (this included the gear-up light), and we were unable to visually identify anything wrong externally. Noise came from beneath us, but gear wasn't extended, and we had full fuel, so we proceeded as intended. Upon returning, I extended the gear at 110 knots approximately 1500 feet over highway...There was no green light, and there was no right main gear in sight. I'm a CFI, so I sit on the right because this is where I'm most comfortable. Also, for photo flights in this aircraft, the left window can be opened fully for a camera. I notified Tower, did a low approach for their verification of the situation, and then began circling...Troubleshooting via the POH* [Pilot's Operating Handbook] *emergency procedures failed to extend the right main twice. The photographer is a low-time pilot, so we arranged the tasks in the cockpit... Retracting and extending the gear showed that the right main would extend most of the way, but would be pushed aft in the wind, almost to full retraction (as confirmed in reflection of open window). Pulling G's failed...We had been in the air for hours, so fuel was running very low....*

What would you have done?

Situation #2: "The Trainee Got Caught Up in the Heat of the Moment" (Air Traffic Controller)

■ *At ZZZ airport, an aircraft landing Runway 4R was instructed to go around due to traffic on the runway, at the same time a Runway 4L departure was just breaking ground downfield. Control instructions were given to separate these 2 aircraft by a trainee who was in the process of briefing a relieving controller. The instructor (me) gave the trainee instructions to avoid conflict with airport ABC ILS Runway 6 arrivals, however the trainee got caught up in the heat of the moment and issued his own instructions, which put the Runway 4L departure in direct conflict with the ABC ILS Runway 6 arrival....*

What would you have done?

Situation #3: "Got That Bad Feeling" (MD80 Captain)

■ *Eleven nautical miles from Runway 22R intercepted ILS Runway 22R, Approach then advised FOD* [Foreign Object Debris] *on Runway 22R, expect to go to Runway 27R. Inflight visibility about 7 miles in haze, early morning sun. Approach gave initial heading to move to Runway 27R localizer. I told First Officer I had runway in sight, all navigation instrumentation appeared to be appropriate. A few moments later, I lost what I believed to be Runway 27R, had the approach plates out for both runways and had Runway 27R selected, but was on a sharp intercept angle and after losing sight of what I believed to be the Runway 27R, got that bad feeling that too much was going on to be comfortable. Unknown to us, the #2 VHF nav receiver (the First Officer's) had failed....*

What would you have done?

Situation #4: "My Engine Called it Quits" (GA Pilot)

■ *We were on our way home, sailing along in the Bonanza at 9,000 feet enjoying a clear sunny day and a nice 20-knot tailwind...There was a continuous overcast layer far below us but this was not a concern, until I thought I noticed some very subtle variation in the RPM so readjusted it from 2400 back to 2300 RPM and tightened the locking ring, but didn't know why it had changed. I then did a routine instrument scan and was shocked to see the oil pressure gauge pegged at zero! I warned my wife (also a pilot) to get ready for the engine to stop soon and advised Center of our emergency situation. My GPS showed a small airport with a 4,000 foot runway about 10 miles ahead. ATC confirmed this and cleared me direct to ZZZ (as though I had many options) and began to advise of my relative position. About that time, my engine called it quits...We glided easily to above ZZZ but at 2,000-3,000 feet we were on top of the solid overcast layer without any visual ground contact... As I spiraled down over the field, ATC lost radar and radio contact with me so of course could not give me any further situational help or keep up with what was happening....*

What would you have done?

ASRS Alerts Issued in May 2008	
Subject of Alert	**No. of Alerts**
Aircraft or aircraft equipment	17
Airport facility or procedure	10
ATC procedure or equipment	3
Company policy	1
Total	**31**

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94035-0189

http://asrs.arc.nasa.gov/

May 2008 Report Intake	
Air Carrier/Air Taxi Pilots	2762
General Aviation Pilots	883
Controllers	120
Cabin/Mechanics/Military/Other	409
TOTAL	**4174**

Situation #5: "I Smelled Something Electrical" (Flight Attendant)

■ *After about 3 to 5 minutes from takeoff, I smelled something electrical...I called the cockpit and explained the smell, and told the Captain I would call him back in seconds if it got worse. At that time, I looked back in the cabin and passengers were complaining of a bad odor...I also noticed a smoke or haze slowly filling up, in no particular area. I immediately called back to the cockpit and...told him I was going to locate the haze. When I was at my interphone I noticed that the floor by my jumpseat was getting very warm and at the same time the smoke alarm in the lavatories started ringing....*

What would you have done?

The Rest of the Story - Our Reporter's Actions

Situation #1: "There Was No Right Main Gear in Sight" (GA Pilot)

■ *A pilot on the ground relayed a story to us...about a successful extension using the towbar...I tried twice to extend the right main by hooking the bar around the leg in slow flight, but only moved it forward approximately 6-8 inches... We agreed we'd try once more to extend the gear, and then we had to land.*

The photographer got on the floor in the back seat, I moved to the left front seat, pushed the right seat full forward, and the photographer wrapped his legs around the bars of the back seat before extending part of his torso out the door to use a combo of the towbar and his hands. The green light suddenly went on, and the gear warning horn stopped. I returned to the right seat, and elected to land at ZZZ for the long and wide runway. The towbar and hands had been able to lock the gear in place. We landed cautiously at ZZZ without any problems. The photographer did this because he's hung out of helicopters for photos many times. All attempts (except G's) were performed at MCA [Minimum Controllable Airspeed] *of 40-45 knots.*

Situation #2: "The Trainee Got Caught Up in the Heat of the Moment" (Air Traffic Controller)

■ *I was able to call the* [direct] *line...and advise Approach Control as to the pending situation at which time they turned the ABC arrival away from the ZZZ departure...The trainee who was providing a position relief briefing at the time of this incident was unable to respond to his trainer's instructions to resolve this conflict. While I (trainer) was aware of the situation and giving instructions to the trainee, I did not have override capability as the relieving controller (who was unaware of the pending situation, due to the fact he had just plugged in), was plugged into the jack that would have given me the chance to issue the proper control instructions.*

Situation #3: "Got That Bad Feeling" (MD80 Captain)

■ *I was getting conflicting information and nothing made any sense which made me try to scramble to mentally resolve what was going on. We had switched to the Tower Controller. He was doing a good job of giving me several headings to try to steer to final to salvage this, but I finally did the right thing and told the First Officer to advise the Tower we were going missed approach.*

I showed very bad judgement in calling the airport in sight so early in marginal visibility. Years ago, the flight manual stated that a visual approach should not be accepted unless it is judged as 'safe as [an] *instrument approach.' That is still good advice. I give myself a 'D' for the bad judgement that put me in that situation of my own creation. I give myself an 'A' for declaring a missed approach early. We never got below 3,000 feet MSL and were 5 nm from airport when I blew the approach off and did the right thing. Good lesson learned.*

Situation #4: "My Engine Called it Quits" (GA Pilot)

■ *The GPS was able to tell me exactly where the airport was below the clouds and allowed me to stay over it. We broke out of the clouds at just 600-700 feet directly over the middle of the field and were able to execute a successful engine-out landing. Due to the low ceiling, my visual maneuvering options were very limited when I broke out, so if I'd been 1 mile or 2 miles off, the outcome would have been much different as the surroundings were inhospitably hilly and wooded terrain. The GPS paid for itself many times over!*

Situation #5: "I Smelled Something Electrical" (Flight Attendant)

■ *I immediately went to grab the halon, and felt the walls and ceilings in both lavatories. They felt normal. Then only the right lavatory alarm continued to chime. The left lavatory chimes stopped. I then called up to the front and asked the flight attendants to bring back more halons. I started to feel the ceilings in the aisles. By this time, the smoke/haze had dissipated. The Captain informed the passengers we would be landing in 10 minutes. I then went up to the window exits to brief the passengers if and when they needed to open the window. We landed without incident...We were finally towed to the gate...*

CALLBACK

From NASA's Aviation Safety Reporting System

Number 349 January 2009

What Would You Have Done?

Back again, by popular request, is another "interactive" issue of *CALLBACK*. In response to suggestions that we make these issues more interactive, you will find several plausible answer choices following each incident excerpt on the front page. On the back page, you will find the "rest of the story" – the actions actually taken by reporters to resolve their situations. Keep in mind that reporters' actions may not always represent optimal safety solutions, and that these incidents are intended to foster further thought and discussion.

Situation #1: "I Was Quickly Running Out of Options" (GA Pilot)

■ *I received standard weather briefings via DUATS for my route...My interpretation was that it was to be a CAVU day along my entire route...I called Approach and obtained VFR flight following...I did not check the weather again before departing. Approaching the mountains...at 8,500 feet MSL, I observed what appeared to be poor visibility under the clouds...I informed ATC that I was climbing to 10,500 feet MSL. When I reached that altitude...I thought after I cleared a 'line of clouds' I would be able to descend. However, it became apparent that the overcast was somewhat widespread, the tops continued to rise, and I soon found myself climbing to 12,500 feet...I was wary of climbing higher, given the oxygen requirements, which I was aware of* [and] *I was concerned about possible effects of hypoxia...However, the cloud tops continued to rise, and I continued to climb to 14,000 feet...I was approaching the service ceiling of my aircraft and thus quickly running out of options to avoid the clouds....*

What would you have done?

- Turn back towards the departure airport
- Confess the dilemma to ATC
- Declare an emergency
- ? ? ?

Situation #2: "We Simultaneously Received Two Calls" (Air Carrier Flight Crew)

■ *As we were holding short of Runway 7L and #1 for takeoff, we simultaneously received 2 calls: one from the aft flight attendant stating that a passenger had just gotten up and was going to the lavatory, and a second from the Tower clearing us into position and hold Runway 7L. I was off of Com #1 and speaking with the flight attendant while the Captain was communicating with the Tower....*

What would you have done?

- Explain the problem to ATC and move the aircraft to a holding area
- Delay accepting the takeoff clearance until the passenger could be seated
- Accept the takeoff clearance and taxi very slowly into position
- ? ? ?

Situation #3: "The Pilot Lost All Avionics" (Air Traffic Controller)

■ *While working the West Arrival position, I accepted a handoff of a DH8* [turboprop] *on the ABC arrival from the Center. The aircraft had no Mode C displayed but our Letter of Agreement with the Center requires props on the arrival to be at 11,000 feet and jets at 12,000 feet. When the aircraft checked in, I confirmed his altitude and informed the pilot his Mode C was not working and asked him if any other controllers had mentioned this to him. The pilot stated that no one had informed him and they were trying to recycle the transponder. I instructed the pilot to descend and maintain 9,000 feet and to report reaching. The pilot then informed me that he was getting an error message on the TCAS regarding lack of altitude. I issued the pilot an instruction and when he responded I heard the 1,000 feet-to-go warning...so I confirmed that he was leaving 10,000 feet for 9,000 feet. He responded yes, and after about 90 seconds I asked the pilot if he was level at 9,000 feet and he then stated he lost all avionics....*

What would you have done?

- Coordinate traffic separation for the DH8
- Call for a Supervisor
- Declare an emergency for the DH8 pilot
- ? ? ?

Situation #4: "The Passenger Agent Refused to Deal with the Problem" (Air Carrier Captain)

■ *About 20 minutes prior to scheduled departure, the purser on my flight came into the cockpit to advise me that a handicapped passenger sitting in First Class had placed pillows or cushions in front of their seat in order to prop up their legs, which are disabled. The purser had asked*

ASRS Alerts Issued in November 2008	
Subject of Alert	**No. of Alerts**
Aircraft or aircraft equipment	8
Airport facility or procedure	4
Chart, Publication, or Nav Database	1
Company policy	1
Total	**14**

A Monthly Safety Bulletin from

The Office of the NASA Aviation Safety Reporting System,
P.O. Box 189,
Moffett Field, CA
94035-0189

http://asrs.arc.nasa.gov/

November 2008 Report Intake	
Air Carrier/Air Taxi Pilots	2490
General Aviation Pilots	763
Controllers	39
Cabin/Mechanics/Military/Other	299
TOTAL	**3591**

the passenger if they would mind moving to the window seat so that the improvised foot rest wouldn't block the exit path in front of the seat. The passenger replied that their disability made it impossible for them to sit in the window seat. At this point, the purser brought the issue to me...I went out to the gate area to advise our [passenger agents] *that we needed to find some solution to this, because we couldn't have exit space in front of this passenger's seat blocked, per FAR. The passenger agent...quickly refused to deal with the problem because 1) this passenger works in a government agency, and 2) because the passenger is at our company's highest level of Frequent Flyer program...*

What would you have done?

- Refuse to move the aircraft until the passenger complies with FARs
- Stow the cushions during critical phases of flight
- Move the passenger to another accessible seat
- ? ? ?

The Rest of the Story - The Reporter's Actions

Situation #1: "I Was Quickly Running Out of Options" (GA Pilot)

- **Confessed the dilemma to ATC**

■ *....During this entire time I contemplated turning around but I continued to assume better conditions were close ahead, and was also concerned that conditions behind me may have worsened. Finally I made a smart decision, to confess my dilemma to ATC, who suggested calling Flight Watch. I did contact Flight Watch who were very helpful, suggesting conditions should be better ahead, to the north, or failing that, at, or to the west of my destination. Shortly thereafter, I saw a large break in the cloud layer and descended rapidly through it to 6,500 feet. The remainder of the flight was completed uneventfully....*

In retrospect, staying below the clouds would have been a much better option. I allowed incorrect assumptions about the extent of the overcast layer to influence my judgement, and failed to consider turning back when it was still my best option. On the positive side, I did eventually admit my mistake and obtain the assistance I needed, and Flight Watch and ATC were both helpful in resolving the situation without incident.

Situation #2: "We Simultaneously Received Two Calls" (Air Carrier Flight Crew)

- **Delayed accepting the takeoff clearance until the passenger could be seated**

■ *....Before accepting the clearance onto the runway and while still holding, I communicated the problem to the Captain and asked the flight attendant to seat the passenger immediately and inform us as soon as the cabin was secure. The Captain then told the Tower that we were now ready and we were cleared for takeoff on Runway 7L.*

This scenario, while simple and with no violations, created a lot of confusion and chaos in the cabin, in the cockpit, and with ATC. I would continue to encourage the cabin crew to call us as soon as possible if they experience cabin security violations to allow us time to coordinate with ATC. In time-critical situations such as this scenario, explaining the nature of the problem to ATC and simply moving to the holding area to regroup may be the better choice in order to give everyone time to clear their heads in preparation for a safe, focused departure.

Situation #3: "The Pilot Lost All Avionics" (Air Traffic Controller)

- **Declared an emergency for the DH8 pilot**

■ *I declared an emergency for the pilot and then called the West Departure controller as the aircraft was now in another controller's airspace and asked him to protect his airspace around the aircraft with the avionics failure as I did not know his altitude or heading. The pilot then called me to say he had an altimeter working and he was at 7,500 feet and asked me if* [I wanted him] *to go back up. I said no and to descend and maintain 6,000 feet. I then switched the aircraft to the Final controller and he landed without incident.*

Situation #4: "The Passenger Agent Refused to Deal with the Problem" (Air Carrier Captain)

- **Stowed the cushions during critical phases of flight**

■ *A Supervisor was called as was a Flight Ops Supervisor to deal with the problem. We ended up going back down to the airplane and had 5 people crammed in the cockpit of my B757 (2 pilots, the purser, and 2 supervisors) discussing what to do...I finally got across to the* [passenger] *Supervisor that it was illegal to have the area in front of this passenger's seat blocked for taxi, takeoff, and landing, and that the passenger's Frequent Flyer status and position in the government didn't change that. The Supervisor then went back and asked the passenger if they would mind if the cushions were stowed during those critical phases of flight, and the passenger said OK, and that was the end of it, but we took an 18-minute delay dealing with what should have been a simple problem....*

I can't imagine what would have happened if the passenger had refused to allow the pillows/cushions to be stowed. I wasn't going to leave the gate like that. I need to point out that when the purser was originally trying to find a solution on her own with the passenger, the passenger said that...this was the first time anybody had said anything about this issue....My airline (and flight attendants) could have been violated every time an airplane took off and landed with this passenger's cushions in front of them, but the violation was ignored up to this point....

CALLBACK

From NASA's Aviation Safety Reporting System

Number 355 July 2009

What Would You Have Done?

ASRS continues to receive feedback from *CALLBACK* readers that our "interactive" issues (requiring readers to assess possible solutions to reporters' problems) are thought-provoking and educational. On this month's front page, you will find a selection of incident report excerpts (the "first half of the story"), followed by several plausible answer choices. Select the answer choice for each incident that seems the best course of action. On the back page, you will find the "rest of the story" – the actions actually taken by reporters to resolve their situations.

Keep in mind that reporters' actions may not always represent optimal safety solutions, and that these incidents are intended to foster further thought and discussion.

Situation #1: "Our Airspeed Was at the Lowest Allowable" (A320 First Officer)

■ *The ILS to Runway 36L was NOTAM'ed out of service, so we expected to do a* [nighttime] *visual to Runway 36L. We came in fairly high on a left downwind and reported the field in sight. Approach cleared us for the visual and told us to maintain 3,600 feet until 'north of the air base.'… The Captain called for 'gear down' and entered a very steep bank to turn left base, but I realized we would be rolling out WELL left of centerline, and we were starting to get low with a high descent rate. The Captain seemed totally flustered and I was sure he was looking at something other than the actual runway. On about a 5-mile final, could see the PAPI and all the lights were red, and our airspeed was at the lowest allowable speed (VLS)….*

What would you have done?

- Called for a go-around
- Alerted the Captain to being left of centerline and very low.
- Assumed control of the aircraft.
- ? ? ?

Situation #2: "Pilots Were Slowing Way Down" (Local Controller)

■ *While working Local Control South…on a predominantly arrival favored runway, the South Final Approach Controller was running successive arrivals very tight down to minimum separation. Wake turbulence was involved in nearly every arrival seeing that nearly every arrival was either a heavy jet or B757. Compression factor from a 5-mile final inbound was extra cumbersome due to strong headwinds and gusts, and it seemed like pilots were just overall slowing way down inside the 5-mile final…*

The B737 that this report applies to checked onto my frequency at a 16-mile final and I initially issued traffic 6 miles ahead, heavy B767, report it in sight. The B737 began to search for traffic while I continued working other traffic on the frequency. The preceding B767 began to slow way down at this point as he reached the FAF and I saw that indeed the following B737 would need to slow down as well, or call the traffic in sight for a visual approach just like all the other aircraft I had been handling in that fashion. At this point I did not use speed control on the B737 because he was well outside of my 'FAF/5 miles' jurisdiction, not to mention Approach was filling the final behind him very tight as well, and I did not want to interrupt the sequence with a very slow aircraft…Once the B737 reached a 10-mile final, I made an additional traffic call to see if he had the heavy in sight. The B737 reported the field in sight and again I prompted him that I needed him to 'report only traffic please.' At this point the preceding heavy B767 had reached a 2-mile final and the B737 was at a 7-mile final all according to the Tower Display Workstation radar scope….

What would you have done?

- Advised the trailing B737 he had 10 seconds to report the B767 in sight.
- Instructed the trailing B737 to reduce to minimum approach speed.
- Canceled the trailing B737's approach clearance.
- ? ? ?

Situation #3: "Found Throttle Completely Disconnected" (Beech Bonanza Pilot)

■ *On the first leg of a 2-leg trip, the throttle felt slightly loose, like it needed tightening. Made note to check when we got home. Couldn't find anything wrong during preflight or run-up for second leg. Uneventful trip home at 6,000 feet.* [I] *left throttle wide open as usual. Began descent…Advised airport in sight about 10 nm out. Approach cleared me for a visual Runway 14L and handed me off to Tower. Near airport, tried to slow, found throttle completely disconnected, could move lever forward and aft, but no change in manifold pressure. Since other controls worked properly, decided to land using prop, gear, and flaps to control speed. Tower cleared me to land on Runway 14L. Entered left base. Airspeed on final about 110 knots (versus 90 knot target). Attempted to land despite higher speed, but aborted landing after bouncing twice. Advised Tower going around, throttle problem. Told to make right traffic, plan for Runway 14R. Acknowledged change in runways, continued climbout, began climb, and selected gear up. Gear lights stayed green, red 'in transit' light never came on, rate of climb lower than normal….*

What would you have done?

- Assumed gear-down indications were correct and tried another approach.
- Departed the pattern for troubleshooting.
- Declared an emergency with the Tower.
- ? ? ?

ASRS Alerts Issued in May 2009	
Subject of Alert	**No. of Alerts**
Aircraft or aircraft equipment	6
Airport facility or procedure	6
ATC equipment or procedure	3
Company policy	2
Maintenance procedure	2
Total	**14**

A Monthly Safety Bulletin from

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94035-0189

http://asrs.arc.nasa.gov/

May 2009 Report Intake	
Air Carrier/Air Taxi Pilots	2241
General Aviation Pilots	842
Controllers	59
Cabin/Mechanics/Military/Other	396
TOTAL	**3538**

The Rest of the Story - The Reporter's Actions

Situation #1: "Our Airspeed Was at the Lowest Allowable" (A320 First Officer)

- ***The Reporter's Action:*** **Alerted the Captain to being left of centerline and very low.**

Do You Agree?

■ *…I said 'I show you WELL left of centerline and very low.' Just then, the Airbus voice called out 'Speed, Speed.' The Captain added lots of power and was trying to climb when I realized that the speed brakes were deployed to the Full Up position. I told the Captain this as I immediately retracted them, and then things went back to normal.*

The contributing factors were: 1) The lack of an ILS approach to a 'black hole approach' over water at night. 2) Our relative unfamiliarity with the airport led to confusion about where the 'air base' was and what altitude we should be at. I think Approach should always reference approach fixes, DMEs, or 'miles to the field' when giving altitudes. 3) The speed brakes cause virtually no vibration on the Airbus. The only indication that they were out was the small amber 'Speed Brake' indication on the ECAM page. During this approach we never saw the message since we were primarily looking outside….

Situation #2: "Pilots Were Slowing Way Down" (Local Controller)

- ***The Reporter's Action:*** **Canceled the trailing B737's approach clearance.**

Do You Agree?

■ *…I canceled the trailing B737 approach clearance, told him to maintain 1,500 feet and fly present heading. I gave the B737 one last chance while he was still in a position to land safely to see the heavy on short final, and when he said…that he 'had the field' I told him to climb and maintain 3,000 feet and turn right heading 120 to break him away from the approach sequence…Quality Assurance at my facility proceeded to investigate the situation only to find that a loss of separation did indeed occur, as I was about 20 seconds late in canceling the B737's approach clearance allowing him to get within 4.7 miles of the heavy B767 instead of the required 5 miles….*

Situation #3: "Found Throttle Completely Disconnected" (Beech Bonanza Pilot)

- ***The Reporter's Action:*** **Departed the pattern for troubleshooting.**

Do You Agree?

■ *….Told Tower I wanted to depart pattern and troubleshoot before trying another landing. Tower said squawk 1200 and handed me back to Approach. Told to maintain VFR at or below 3,500 feet, asked for souls and fuel on board, and approved frequency change so I could contact local FBO/Beechcraft maintenance shop. Discussed situation with maintenance manager via relay through FBO line manager. Decided nothing we could do about throttle airborne, OK to land using remaining controls, after verifying gear was down/locked. Reviewed Pilot Operating Handbook, pulled gear motor breaker, removed handle cover, deployed handle, and turned about 25 turns in wrong direction. Greens lights went off and red light came on. Turned handle about 25 turns in the correct direction, red light went out and green lights came back on. Maintenance manager agreed gear must be down. Switched back to Approach and advised ready to land but engine might quit once on ground. Declined offer to have equipment standing by. Approach gave heading back to airport, cleared visual Runway 14R and handed me off to Tower. Tower cleared me to land and advised other traffic they might have to switch runways. Set up for extended final, slowed to about 80 knots, had passenger crack door open, and set down as gently as possible. Landing gear held…Thanked Tower for help, taxied to ramp and shut down.*

Next work day, mechanic found throttle cable arm loose on throttle body. Torqued self-locking throttle control arm nut, found it could turn 1/3 of full turn. Replaced nut and torqued…Mechanic checked landing gear. Couldn't replicate problem raising gear. Suspects bounces might have temporarily jarred one of the [landing gear] *squat switches.*

Lessons learned:

1) Don't postpone maintenance involving key systems or controls.

2) Don't hesitate to advise ATC if a problem develops.

3) If required to go around and having problems with other systems or controls, consider leaving gear down to minimize variables.

4) Plan extended final if uncertain about speed control.

5) Learn more about aircraft systems.

6) Double-check [gear handle] turn direction before using manual gear extension procedure.

7) Find a better way to communicate with maintenance while airborne.

CALLBACK

From NASA's Aviation Safety Reporting System

Number 360 December 2009

What Would You Have Done?

This month we offer another "interactive" issue of *CALLBACK*, inviting you to exercise your decision-making skills in response to dilemmas described by ASRS reporters. The front page presents four incident report excerpts followed by several plausible decision choices. Which of these choices seem the safest to you? On the back page, you will find the rest of the story – the actions taken by reporters to resolve their situations. You may find that reporters' actions do not always reflect what you would have done, or represent optimal safety solutions. We hope you will find this material thought-provoking.

The First Half of the Story

Situation #1: "The Only Visible Damage Was a Dent…" (C-172 Pilot)

■ *I flew a rental plane from my home base…on a pleasure flight with a friend (also a pilot) as the only passenger… I landed on a turf runway, and taxied along the runway towards the parking area… As I approached the parking area, I moved slightly to the left of the centerline of the runway, setting up for a right turn farther down to park… As I continued taxiing, the plane suddenly had some sort of impact that forced it into a sharp 90-degree turn to the left, and it continued on a path straight towards the brush and trees that border the runway. I hit the brakes, but was not able to stop—perhaps slipping on the turf—before the nose of the plane entered just a little bit into the brush, with the prop chopping up small branches and splitting a small tree (approximately 3-inch diameter). The tree broke and fell sideways hitting the far leading edge of the left wing. Even though the plane had stopped, the engine continued to run until I stopped it by pulling the mixture knob…*

After pushing the plane back, we did a thorough inspection. The only visible damage was a dent on the far end of the leading edge of the wing, and flaps and ailerons functioned normally. The engine started normally, with all instruments in the proper range. I used power to park the plane alongside the other planes. No mechanical services were available. I then considered my options, in consultation with my pilot passenger….

What would you have done?

- Arrange alternate transportation back home
- Call the rental FBO and ask for help
- Fly the airplane back to home base
- ? ? ?

Situation #2: "Don't Sink, Don't Sink" (B737 First Officer)

■ *Upon departure from Reno (heavy: 143,000 pounds), received notice of a Bonanza at 6,000 feet (1,500 feet AGL). At the same time, TCAS presented a target in front of us with a +200 foot separation. The target was immediately yellow, and then an RA instructed us to descend. The Captain immediately descended as the flaps were still retracting. The TCAS commanded a 1,500 FPM descent. We were 1,500 feet AGL at this time. While complying with the RA, the aircraft Ground Proximity Warning System issued a caution, 'Don't Sink, Don't Sink'….*

What would you have done?

- Arrest the descent and begin a climb
- Arrest the descent and level off
- Continue descent and pass underneath the Bonanza
- ? ? ?

Situation #3: "I Discovered a Socket Rail Missing" (Maintenance Technician)

■ *I was performing Phase task cards for the left and right engines, aft equipment bay, assisting in jacking aircraft, replacing an APU fire bottle, and clearing a deferral write-up. I worked different tasks at the same time due to the aircraft going up and off jacks. The aircraft was running late and I still had leak checks to be performed on engine runs. My toolbox is shadowed and my normal routine is to inventory my toolbox after each task…I taxied the aircraft to the gate, but as we were returning to the hangar we were told to return to the gate to assist with repositioning aircraft due to a late tail swap. Upon returning to the hangar, I inventoried my toolbox and discovered a socket rail missing….*

What would you have done?

- Go to Craig's List and buy a used socket rail
- Return to the gate area to search for the tool
- Report the missing tool to a Supervisor
- ? ? ?

Situation #4: A Passenger Stuck in the Lavatory (EMB-145 Captain)

■ *During climb to cruise altitude the Flight Attendant notified us that a passenger had gone into the lavatory and could not get the door open to come out. She said that she and the* [stuck] *passenger had tried multiple times to no avail to get the lavatory door open…As we were about 50 miles from* [destination], *I called Maintenance on the radio and told them our predicament. After a brief discussion with Maintenance, they told us of a possible way to get the door open. We had been switched over to Approach Control and were now only about 30 miles from the airport. I relayed the information to the Flight Attendant and had her try the way Maintenance had suggested to get the lavatory door open. Again, she was unsuccessful* [getting] *the lavatory door open. At this point we were less than 10 minutes from landing and there was severe weather west of the airport and moving east….*

What would you have done?

- Assist the Flight Attendant with a crash ax
- Tell the passenger to stay seated for landing
- Divert to an alternate airport
- ? ? ?

ASRS Alerts Issued in October 2009	
Subject of Alert	**No. of Alerts**
Aircraft or aircraft equipment	10
Airport facility or procedure	7
ATC equipment or procedure	4
Maintenance procedure	1
Total	**22**

A Monthly Safety Bulletin from

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94035-0189

http://asrs.arc.nasa.gov/

October 2009 Report Intake	
Air Carrier/Air Taxi Pilots	2846
General Aviation Pilots	923
Controllers	42
Cabin/Mechanics/Military/Other	454
TOTAL	**4265**

The Rest of the Story: The Reporter's Actions

Situation #1: "The Only Visible Damage Was a Dent…" (C-172 Pilot)

- ***The Reporter's Action:*** **Fly the airplane back to home base**

■ *Key factors in my decision-making process were: 1) The engine was not stopped forcefully by any impact on the prop, but continued running until I stopped it, 2) The engine had started and functioned normally when I parked the plane, and 3) Nose and prop showed no signs of damage. This led to the assessment that the engine and prop would operate normally. Furthermore, the dent in the left wing did not appear large enough to have any significant influence on the plane's flying characteristics, especially with only 2 persons on board...Based on this assessment, I made the decision that I would go through a thorough preflight, a normal engine start, then back-taxi on runway, perform a run-up, and if all instruments and run-up showed all the proper readings and passed all checks, I would take off, climb and stay close to the airport until assured that the plane responded correctly to all control inputs and that it kept a stable flight attitude. Should anything unusual be noticed, I could land back on the runway. My passenger agreed with my decision and felt comfortable with the plan.*

This plan was carried out, everything functioned normally, and I decided to head back to the home base. The flight to and landing at the home base airport were smooth and uneventful, without any indication whatsoever that anything was out of order….

After a mechanic had examined the plane…I was briefed on the damage the mechanic had detected. I also was informed and given a copy of the 2004 Airworthiness Directive (04-10-14), which contains a change in the definition of a 'prop strike or sudden stoppage,' and which requires compliance with the Airworthiness Directive…It was explained to me that the prop strike that occurred fit this change definition, and that, therefore, the return flight to the home base was not in compliance with the Airworthiness Directive…Had I known of the Airworthiness Directive, I certainly would not have flown the plane back….

Situation #2: "Don't Sink, Don't Sink" (B737 First Officer)

- ***The Reporter's Action:*** **Arrest the descent and begin a climb**

■ *The Captain immediately arrested the descent and then commenced a climb. We never saw the traffic. We were only 1000 feet AGL and the terrain was rising in front of us (red on the EFIS screen). The aircraft was able to climb safely away from the terrain once the climb was commenced. The Captain called the Tower the next day and related to me that the Bonanza was on a downwind and the Tower thought there was adequate separation. Our B737 apparently thought differently, resulting in something that should be of concern: an RA commanding a descent at a low altitude in rising terrain. I have never had a Resolution Alert at such a low altitude, and I have never had a Ground Proximity caution resulting from a TCAS RA maneuver. We could not out-climb the Bonanza, it was directly in our climb path. Even if we saw it, which we didn't, we were in a canyon without room to maneuver clear, other than descending and passing underneath it at 1,000 feet AGL…We were lucky it was daylight.*

Situation #3: "I Discovered a Socket Rail Missing" (Maintenance Technician)

- ***The Reporter's Action:*** **Report the Missing Tool to a Supervisor**

■ *I notified my Supervisor who immediately checked on the status of the aircraft. It was on final at* [destination]. *He called* [the airport] *to check the aircraft and the socket rail was recovered. I should have been more assertive, stuck with one task at a time and inventoried my toolbox after each task. If not for the repositioning of the aircraft at the gate, I still would have had time to discover the missing tool before flight. I had the right process but not the right sequence.*

Situation #4: A Passenger Stuck in the Lavatory (EMB-145 Captain)

- ***The Reporter's Action:*** **Tell the Passenger to Stay Seated for Landing**

■ *I told the Flight Attendant to have the passenger take a seat to the best of his ability in the lavatory and had her prepare for landing. The landing was uneventful and reaching the gate Maintenance personnel came on board before any passenger deplaned and were able to open the lavatory door by releasing the hinge pins. An AML entry was made.*

The First Officer's report on the same incident added, *"The passenger that was stuck in the bathroom was not injured* [and] *seemed to be in good spirits after the event."*

CALLBACK

From NASA's Aviation Safety Reporting System

Number 366 June 2010

What Would You Have Done?

It's time for another "interactive" issue of *CALLBACK*! All of this month's reports involve the same type of incident – a real or apparent equipment problem that occurs in IMC or other adverse weather conditions. On the front page you will find "the first half of the story," report excerpts followed by several plausible action choices. On the back page, you will find "the rest of the story," the actions actually taken by reporters to resolve their situations. Each incident will give you a chance to draw on your aviation decision-making experience to anticipate what you would have done in the same situation.

The First Half of the Story

Situation #1: A TRU Dilemma (CRJ-900 First Officer's Report)

Editor's Note: A Transformer Rectifier Unit (TRU) is a device for converting alternating current (AC) input into direct current (DC) output.

■ *While en route…I as the Pilot Not Flying /Pilot Monitoring, noticed a message that said TRU2 on my PFD* [Primary Flight Display] *and on my MFD* [Multi-Function Display]. *I looked over to my Captain's side, the Pilot Flying, and saw his* [display] *said TRU1. I knew this was not normal so I asked him about it. Both the Captain and I thought that it was referring to the Transformer Rectifier Units (TRU) in the electrical system. We brought up the electrical page to monitor TRU1 and TRU2. Both looked fine. We got out our POM* [Pilot Operating Manual] *and contacted Dispatch and Maintenance Control to see if we could find out what it means, as neither of us had seen that displayed before. The plane seemed to be acting fine so we continued toward our destination. While on approach we noticed the TRU1 and the TRU2 message was blinking. When we switched from the FMS to ILS, we noticed a difference in course and also in heading...We were in IMC and in mountainous terrain….*

What would you have done?

- Break off the approach and wait for additional Maintenance input
- Cross-check ILS indications with the magnetic compass and continue the approach
- Proceed to an alternate airport
- ? ? ?

Situation #2: Partial Panel in IMC (C182 Pilot's Report)

■ *My attitude indicator failed in-flight, in IMC, approximately 70 miles southwest of my destination. Weather was reported in the area as 2,900 BKN and 4,000 OVC with 7 miles visibility which should have allowed for a visual approach. After determining weather from 2 stations which confirmed each other, I elected to continue since it should have been a brief descent through IMC which did not strike me as unsafe with the partial panel situation, provided the approach was to be conducted in VMC. However, weather conditions deteriorated significantly in the next 30 minutes and I was still IMC 3 miles from the airport at the lowest altitude Approach could give me, 2,300 feet MSL. Rain and light turbulence were making partial panel IFR challenging and my headings and altitudes were deviating….*

What would you have done?

- Continue the approach to a landing
- Declare an emergency and request vectors to the nearest airport reporting VMC
- Fly a missed approach and return to the departure airport
- ? ? ?

Situation #3: "The Crew and Company Saw Things Differently" (A320 First Officer's Report)

■ *Aircraft generated ECAM AIR ENG 2 Bleed Fault. Crew performed ECAM actions. Next notified Company Dispatch (via ACARS) and reviewed AOM* [Aircraft Operating Manual] *for further guidance…There was one* [AOM] *procedure which would affect our flight: Do not operate into known or forecast icing conditions. In addition, the procedures required that we descend to FL310 and avoid icing conditions. We contacted ATC and requested descent to FL310 and contacted company to advise about the MEL. This is where the crew and company saw things differently… Our concerns regarding MEL requirements of known icing and FL310 required diverting to an airport with no known/ forecast icing. However, the company's repeated view of no-MEL* [restriction] *on the aircraft and no restrictions from the AOM allowed us to continue to our ice-impacted destination at FL390. This discussion lasted while we continued northbound toward our original destination….*

What would you have done?

- Proceed to the destination at the higher altitude
- Establish a phone patch with the Chief Pilot to further discuss operating manual references
- Divert to an airport with no known icing
- ? ? ?

Situation #4: "Canceled IFR Short of the Destination" (Piper Malibu Pilot's Report)

■ *Departed local VFR and picked up IFR en route. Flew to vicinity of destination in good weather. Canceled IFR short of the destination…It became apparent that fog had moved in with ceiling of 100 feet. Elected to continue VFR to airports indicating VMC…Two airports selected just prior to arrival (within 1 mile) had become obscured due to very heavy rainfall. Fog had moved inland and presented an obscured deck of 1,500 feet. Unable to locate airport frequencies due to name issues on GPS systems (the airport is not named after the city but by another name). It took an additional 10 minutes to contact them. Fuel was now a critical issue….*

What would you have done?

- Request ATC vectors to an airport in VMC
- Request an immediate IFR approach
- Declare an emergency
- ? ? ?

ASRS Alerts Issued in April 2010	
Subject of Alert	**No. of Alerts**
Aircraft or aircraft equipment	2
Airport facility or procedure	6
ATC equipment or procedure	3
Other	1
Total	**12**

A Monthly Safety Bulletin from

The Office of the NASA Aviation Safety Reporting System,
P.O. Box 189,
Moffett Field, CA
94035-0189

http://asrs.arc.nasa.gov/

April 2010 Report Intake	
Air Carrier/Air Taxi Pilots	2843
General Aviation Pilots	979
Controllers	544
Cabin/Mechanics/Military/Other	481
TOTAL	**4847**

The Rest of the Story: The Reporter's Actions

Situation #1: A TRU Dilemma (CRJ-900 First Officer's Report)

- ***The Reporter's Action:***
  Proceed to an alternate airport

■ *….So we went missed. After being vectored around we noticed that our heading indicator was about 12 degrees off of the magnetic compass….Our localizer did not match the runway heading so the Captain decided to go missed again. On the climb-out he made the decision to go to our published alternate, which was VFR. After landing I finally figured out that the FMS was set to True heading instead of Magnetic, which was the reason that our heading and ILS course did not match up. That's when we realized that TRU1 and TRU2 was referring to True Course, not Transformer Rectifier Unit…..*

The reason this occurred was because the FMS was set to TRUE instead of MAGNETIC. Double-check the FMS page to make sure it is on MAG.

Situation #2: Partial Panel in IMC (C182 Pilot's Report)

- ***The Reporter's Action:***
  Continue the approach to a landing

■ *….I notified ATC of the malfunctioning attitude indicator, but elected not to declare an emergency. I requested vectors for the VOR/GPS approach to try and get a controlled descent to VMC, since this seemed a faster route to visual conditions than returning to the south with indeterminate weather. The approach was successfully executed and I broke out at 1,300 feet MSL (800 feet AGL) and was able to land. However, again due to partial panel indications compounded by light to moderate turbulence, my headings and altitude were deviating from ATC clearance, heading up to 25 degrees and altitude up to 200 feet.*

The chain of instrument failure, unexpectedly low ceilings, and my own lack of very recent partial panel experience all led to imprecise IFR flight and likely reduced safety margins. To prevent a recurrence, additional focus on partial-panel proficiency and a more conservative view of weather…to keep the situation from deteriorating would have been advisable, and at the initial indication of attitude indicator failure, I should probably have requested vectors to the nearest airport reporting VMC.

Situation #3: "The Crew and Company Saw Things Differently" (A320 First Officer's Report)

- ***The Reporter's Action:***
  Divert to an airport with no known icing

■ *….I, being the Flying Pilot, handled the aircraft and communications with ATC, while the Captain communicated with the company. He provided operating manual references which state: If any instrument or item of equipment required for the particular operation becomes inoperative en route, the Captain shall comply with the approved procedures for such occurrences as specified elsewhere in the manual, the AOM, applicable MEL's/CDL's* [Configuration Deviation List]*, and any pertinent FAR's. The Captain and I discussed the issue at length, and made the decision to divert to an airport with no known icing due to inop AIR ENG 2 Bleed Fault and MEL restrictions, which we did. This maintenance diversion caused the crew to exceed eight hours within 24 hours which required 18 hours rest and removal from the next day's trip….*

When Dispatch and/or Management disagree with a Captain in regards to the safe operation of an aircraft, the safest course of action should always be taken without extreme pressure that this crew encountered.

Situation #4: "Canceled IFR Short of the Destination" (Piper Malibu Pilot's Report)

- ***The Reporter's Action:***
  Request an immediate IFR approach

■ *….An immediate IFR approach was requested. Gear was dropped and several approaches made. Eventual landing ended with gear failure to engage – landing on the belly. No injuries and minimal damage to plane except propeller.*

CALLBACK

From NASA's Aviation Safety Reporting System

Number 371 November / December 2010

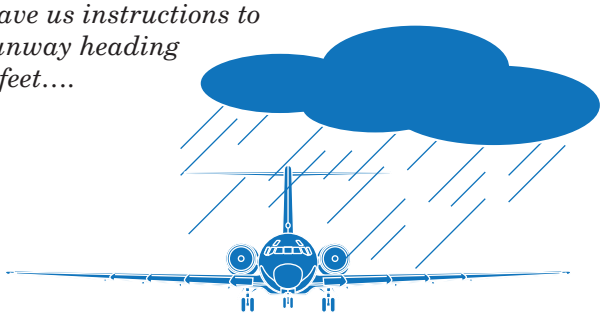
What Would You Have Done?

The season of wintertime operations is here, along with another "interactive" issue of *CALLBACK*. This month we present incidents that required quick decisions on the part of ASRS reporters, usually in snow or icing conditions. How did our reporters do? You be the judge. On the front page you will find "the first half of the story," report excerpts followed by several plausible action choices. On the back page, you will find "the rest of the story," the actions actually taken by reporters to resolve their situations. Each incident will give you a chance to draw on your wintertime operating experience to anticipate what you would have done in the same situation.

The First Half of the Story

Situation #1: "The Left Throttle Would Not Retard" (MD-80 Captain's Report)

■ *Weather at our destination was 500 feet overcast with heavy rain, winds at 230/20, altimeter 29.36. At approximately 4,000 feet in IMC all anti-ice on approximately 20 miles from the airport and 3 miles from ILS intercept, I the pilot flying, noticed the left throttle would not retard to less than 1.35 EPR* [mid-range EPR]. *I directed the First Officer to declare an emergency and consult the QRH for a procedure. The APU was started. The First Officer efficiently completed all tasks. We decided to leave the engine running until landing rollout. Descending through approximately 2,000 feet, the Tower reported a microburst alert with 40 knots gain. Our airspeed increased from 150 knots to 175 knots. I initiated an escape maneuver go-around. Tower gave us instructions to climb runway heading to 4000 feet….*



What would you have done?

- Attempt another ILS approach after stabilizing the aircraft
- Divert to an alternate airport with better weather
- Obtain ATC vectors to troubleshoot the problem with Maintenance
- ? ? ?

Situation #2: "My Climb Would Not Safely Increase" (Piper Cherokee Pilot's Report)

■ *I arrived at the airport early in anticipation of favorable weather to perform several practice IFR approaches at a nearby airport. Unfortunately a layer of fog and haze had set in that reduced visibility at the departure airport below minimums, making an IFR departure an unfavorable option in case I had to return with an emergency. I spent the morning doing cleanup work around the aircraft and performing parts of the preflight checklist including removing the cover, checking oil and tire pressure. The checklist procedures were not performed in the standard order and were executed as part of other tasks. The weather finally broke and the cloud layer had risen high enough to provide for a safe IFR departure. I started the engine and taxied to the runway for run-up. The temperatures were relatively cool in the mid 50's and the engine run-up was normal. After receiving IFR clearance I departed the airport without incident. As part of the climb out I noticed RPM levels were lower then expected and my climb would not safely increase over 500 fpm without speed dropping. In thinking through possible scenarios I realized that in the process of performing my non-standard checklist I may have forgotten to remove the cowling plugs…*

What would you have done?

- Immediately return to the departure airport
- Declare an emergency with ATC
- Continue above the cloud layer to destination
- ? ? ?

Situation #3: Ground Conflict in Snowy Conditions (B767 Captain's Report)

■ *Visibility was reported as variable, one mile with light snow. A normal ILS approach and landing were flown by our First Officer. We cleared the landing runway (9R) and were then cleared to taxi…short of Runway 9L at "T." The taxiways were covered with light snow, which was no problem. We taxied as instructed and held short of Runway 9L at Tango facing north. A few moments later, the 9R Tower Controller told us that there would be an aircraft taxiing into position and holding on runway 9L, and that he would wait for us. Then we were told to cross Runway 9L at Tango and to contact Ramp Control on the other side. The taxi surface was snowy, so I added power to cross 9L gradually. I turned on all the external lights and moved across the hold short line. As my aircraft moved slowly forward, my attention went to the aircraft taxiing into position at the approach end on 9L. His landing lights were on and I perceived that he was continuing to move towards us. At that moment, I realized that he was adding power and beginning his take-off roll, instead of holding in position on the runway….*

What would you have done?

- Add power to cross Runway 9L as quickly as possible
- Attempt communication with the departing aircraft
- Immediately stop the aircraft
- ? ? ?

The Rest of the Story: The Reporter's Actions

Situation #1: "The Left Throttle Would Not Retard" (MD-80 Captain's Report)

- ***The Reporter's Action:*** **Divert to an alternate airport with better weather**

■ *…I elected to divert to our nearby alternate where the weather was better. TRACON gave us vectors for the ILS. I landed and upon touchdown had the First Officer shut down the engine with the fuel lever. Because the throttle was stuck forward, the spoilers deployed and then retracted. The First Officer then redeployed the spoilers. We taxied clear of the runway and had Airfield Rescue and Fire Fighters check us over. We then taxied to the gate.*

Situation #2: "My Climb Would Not Safely Increase" (Piper Cherokee Pilot's Report)

- ***The Reporter's Action:*** **Continue above the cloud layer to destination**

■ *…Although my climb rate was less then optimal I was able to maintain altitude sufficient to continue flight without overburdening the engine pressure and temperature. My options were to immediately return to the departure airport and into IFR conditions or continue in visual conditions above the cloud layer to an airport I knew had visual flight conditions. The option to continue flight would only add five minutes to total time and would position me in an area with visual conditions if an emergency landing was required.*

I requested from the Controller that I maintain current altitude and continue direct to destination with an anticipated visual approach. I arrived at the airport without adverse engine problems and immediately pulled the plugs and checked engine status. The plugs and streamer were still intact and the oil level and smell appeared normal. The obvious lesson was to strictly observe the preflight checklist and do not deviate or perform concurrent tasks. Prior to flight perform one final walkaround.

Situation #3: Ground Conflict in Snowy Conditions (B767 Captain's Report)

- ***The Reporter's Action:*** **Immediately stop the aircraft**

■ *….I immediately stopped our aircraft with our nose 10 to 15 feet past the hold short line and directed our First Officer to tell Tower we were stopping for the aircraft taking off on Runway 9L. As he passed our position, the nose of my aircraft was WELL CLEAR of Runway 9L, and at NO TIME was either aircraft in any danger. We called Tower again and told him that we were stopped short of Runway 9L at Tango, but that our nose was 15 feet beyond the hold short line. After a few moments, we were re-cleared to cross 9L at Tango and to contact Ramp on the other side. With all external lights still on, we crossed 9L.…We were cleared to taxi to the gate and shut down. After checklists were completed, I called…and reported the event. The* [Tower] *Supervisor had not been made aware of the situation at that time…A contributing cause to this event could have been the reduced visibility from the Tower to the take-off position on 9L.*

ASRS Alerts Issued in Sept/Oct 2010	
Subject of Alert	**No. of Alerts**
Aircraft or aircraft equipment	17
ATC equipment or procedures	14
Airport facility or procedure	12
Company policies	1
Maintenance procedure	2
TOTAL	**46**

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A Monthly Safety Bulletin from

NASA Aviation Safety Reporting System, P.O. Box 189, Moffett Field, CA 94035-0189

http://asrs.arc.nasa.gov/

September/October 2010 Report Intake	
Air Carrier/Air Taxi Pilots	5115
General Aviation Pilots	1766
Controllers	1649
Cabin/Mechanics/Military/Other	857
TOTAL	**9388**

CALLBACK

From NASA's Aviation Safety Reporting System

Number 378 July 2011

What Would You Have Done?

In this latest "interactive" issue of *CALLBACK*, all of the reports involve incidents that occurred before, during, or immediately after takeoff. In "the first half of the story," you will find report excerpts describing the situation up to the decision point. There are no "options" presented as in some of our recent "interactive" issues. It is up to the reader to determine all the possible courses of action and make a decision (preferably within the time frame suggested by the report).

The selected ASRS reports may not give all the information you want and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to exercise your aviation decision-making skills. In "the rest of the story," you will find the actions actually taken by reporters to resolve each situation. Publication of a report does not constitute ASRS endorsement of the reporter's action and the decisions presented may not necessarily represent the best course of action. Our intent is to stimulate thought, discussion and training related to the type of incidents that were reported.

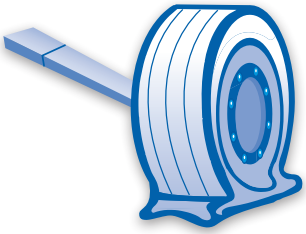
The First Half of the Story

Situation #1: Flat Out Right…or Wrong

(Experimental Aircraft Pilot's Report)

■ [After landing], *I realized that I had a flat left main tire. However, due to the strong winds, I was able to apply right aileron, lift the left main and taxi to the FBO on the right main and tail wheel.*

I…applied "Fix-a-Flat" to the tire [but it] *failed to stop the leak. Because the aircraft uses "unusual" wheels, obtaining a replacement tire from the FBO was not an option. Ordering a replacement would have taken a week or so. My options were to fly the airplane home or leave the airplane at the FBO and get a replacement tire.*



I began seriously considering flying the airplane home. My thought process was as follows: This is a tail wheel aircraft well known for its ability to takeoff and land at very slow airspeeds in very short distances. With a touch of flap and lightly loaded, it can lift off at approximately 20 knots. I had 20 knots of wind directly on my nose. I would be airborne with a ground speed of less than 5 knots. Takeoff would not be a problem, even with the flat. My home airport was reporting winds of over 25 knots down the runway so landing would also be a slow ground-speed event…. Having already landed with the flat, I knew that landing and ground handling was not an issue. I elected to fly the airplane home.

I…was cleared to taxi…. Ground asked me if I was aware that I had a flat left main tire…. I said…I was OK with departing if he was OK with letting me go. Upon contacting Tower, I was told, "Enter the runway at your own risk." I asked if I was cleared for takeoff. Tower said, "No takeoff clearance will be granted. Enter the runway at your own risk." I said, "I don't want to enter the runway if someone else is on final. Am I cleared?" Tower said, "No traffic is observed in the area. Enter the runway at your own risk."

What would you have done?

Situation #2: Sticky Situation

(DHC-8 Captain's Report)

■ [The field] *was IMC with moderate snow. Type 1* [de-icing] *fluid was applied followed by Type IV* [anti-icing fluid]. *About 15 minutes after being treated, we were cleared for takeoff. At V1/VR, I applied smooth backpressure on the yoke. Suddenly it felt like the yoke was sticking and the nose wouldn't come off the ground.*

[An ASRS analyst's callback to the reporter revealed the following additional information: 1. The pilot was familiar with control issues on the DHC-8 attributable to Type 4 anti-icing fluid. 2. A very thorough check of the control movement was accomplished during taxi with no abnormalities noted.]

What would you have done?

Situation #3: Unplanned Formation Takeoff
(B737-800 Captain's Report)

■ *Runway 9R; winds 080/27; wet runway; aircraft weight 155,000 lbs; OAT 30° C;* [field elevation 20 feet MSL; V_1= 151; V_R= 161].

There was a large [thunderstorm] *cell directly ahead of the 9L/R Runways and closing. The aircraft in front of us was issued a right turn to 120 degrees after takeoff. We were cleared into position and hold Runway 9R…. The rain shower was now over the field and intensifying. We changed the power setting to max power and reduced V1 by 5 knots. We were cleared for takeoff and given a right turn to 140 degrees to avoid the weather.*

At approximately 100 knots, I could see a B757 out of my left side window between 50 and 100 feet in altitude. He was low enough that I could not tell if he was taking off or performing a go-around on Runway 9L. The B757 had not called the Tower announcing a go-around…. Tower had issued instructions to all departing aircraft to turn right to the southeast to avoid the cells.

What would you have done?

Situation #4: Low and Slow
(Light Sport Aircraft Pilot's Report)

■ *I was to ferry a light sport airplane to its new owner. Since the departure conditions were gusty and the crosswind component was near the maximum demonstrated for the airplane, I considered my choices carefully—whether to leave at all, which runway to use, etc.*

Among the considerations was the takeoff flap [setting]. *The manufacturer recommends either no flap, or 15 degrees. For a while, I was "on the fence." No flap would minimize my initial drift while I was low, but 15 degrees (first "notch") would have me climbing faster…. At one point I decided that my previous decision to use no flap was not the best choice. I moved the flap selection lever to select 15 degrees...more than the 15 I had already put in, and forgotten…. I failed to verify the setting by looking. Had I done so, I would have seen that the selection lever was pointing at 30 degrees.*

At takeoff, the airplane was climbing very poorly. I found myself drifting off center-line, low and slow over flat airport property in a matter of seconds.

What would you have done?

The Rest of the Story — The Reporters' Actions

Situation #1: Flat Out Right…or Wrong

■ *I asked the controller straight out, "Are you going to issue me a takeoff clearance?" He replied, "No." I was not about to cross the hold-short line without a clearance. "Enter the runway at your own risk" was not a clearance in my mind. So I decided that this flight was now over.*

In the end, I am glad that the Tower Controller did not clear me onto the runway and I am also glad that I elected not to cross the hold-short line without a clearance. Ultimately, not taking off and putting the airplane back in the hangar was the right decision. There is just no sense in increasing risk and, while I was sure that both the airplane and I could handle the situation, there is no question that the risk of taking off and landing with a flat tire is higher than without a flat tire.

Situation #2: Sticky Situation

■ *I applied even more pressure and after about three seconds we became airborne. Once airborne I did roll and pitch corrections to see if anything was abnormal. Everything seemed to be working normally and we continued with no problems.*

Thanks to our training department and those other crews that have dealt with this, we took all the precautions during our taxi checks even doing extra control checks with the elevator. So, when the event occurred, I can't honestly say I was ready for it, but…I knew exactly what was occurring. This was my first time getting Type IV fluid on a [DHC-8]. *We have had a few aborts due to failure to rotate* [presumed to be] *due to de-icing* [fluid anomaly] *events.*

Situation #3: Unplanned Formation Takeoff

■ *Without a clear understanding of which direction the B757 would turn to avoid the thundershower, I had no choice but to abort the takeoff to avoid a potentially catastrophic incident. The rain intensity would have shielded the Tower views of the low altitude go-around. We did not hear a go-around call from the B757 or any Tower instructions. I was not comfortable doing a formation takeoff in IMC conditions…. The abort was initiated at 120 knots. All systems worked as advertised…. The aircraft stopped on the centerline.*

Situation #4: Low and Slow

■ *I realized the error immediately and elected to land on the flat ground, into the wind, rather than attempt to remove any flaps while I was low and relatively slow. The landing itself was normal and no damage resulted. I advised Tower that all was well and I prepared for another departure attempt.*

A friend, who was seeing me off, sent me a text message pointing out that I didn't have to leave. I had a chance to reconsider. Incredibly, the thought of postponing hadn't even crossed my mind. That message loosened up whatever mental cog was stuck. A decision to leave the next day seemed obvious, especially when I thought about how this would read in an NTSB report (Pilot attempted to take off; landed off runway after aborting; crashed on second attempt!) That no damage or injury was sustained is largely a matter of luck.

Nobody would be the least inconvenienced or concerned if this flight took place a day later. What was I thinking? Factors: false urgency; "get-there-itis;" failure to fully appreciate just how vulnerable low-power, low-wing-loading aircraft are to strong crosswinds; failure to look and confirm settings; getting mentally stuck in a groove (i.e. not considering postponing the departure, even with "in my face" evidence of the unsuitability of the prevailing conditions).

ASRS Alerts Issued in May 2011

Subject of Alert	No. of Alerts
Aircraft or aircraft equipment	8
ATC equipment or procedure	4
Airport facility or procedure	2
TOTAL	**14**

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A Monthly Safety Bulletin from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

http://asrs.arc.nasa.gov

May 2011 Report Intake

Air Carrier/Air Taxi Pilots	3017
General Aviation Pilots	1008
Controllers	753
Cabin	317
Mechanics	138
Dispatcher	71
Military/Other	22
TOTAL	**5326**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 385 February 2012

What Would You Have Done?

This latest "interactive" issue of *CALLBACK* deals with two situations that involve general aviation pilots and one that involves an air carrier flight crew. In "the first half of the story" you will find report excerpts describing the situation up to the decision point. It is up to the reader to determine the possible courses of action and make a decision (preferably within the same time frame that was available to the reporter).

The selected ASRS reports may not give all the information you want and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to exercise your aviation decision-making skills. In "the rest of the story," you will find the actions actually taken by reporters in response to each situation. Bear in mind that their decisions may not necessarily represent the best course of action. Our intent is to stimulate thought, discussion, and training related to the type of incidents that were reported.

The First Half of the Story

Situation #1: (C170 Pilot's Report)

■ *We diverted east-northeast…due to a slow moving storm system across the direct route to my destination…. We were getting beat up with turbulence and I climbed above a scattered layer into smooth air, climbing to 6,500 feet MSL. The layer gradually increased in altitude and I climbed to 8,500 feet MSL to maintain VFR cloud clearances. Everything was fine at this point, but the cloud layer gradually increased to a continuous layer. The cloud layer was expected, but I also expected to be well past it before having to descend for fuel. I stayed above the layer rather than backtracking and descending below the layer. This was a poor decision.*

The wind gradually increased to about 40 knots of headwind. It gradually became clear to me that I did not have adequate fuel to get past the layer. The cloud layer did turn out to disappear approximately where I expected it to, but I could not get there with the fuel on board. I was way too far into the corner I created by the time I admitted it to myself. At this point, I did not believe backtracking was a reasonable option. The storm system, which I had done an end-run around, was slowly moving toward the route I had flown, the terrain behind me was higher, and the ceiling under the cloud layer was minimal. AWOS stations ahead of me were reporting a ceiling of greater than 6,000 feet, and some of them were reporting a broken layer. I was still hoping that I would find a break in the cloud layer and be able to stay legal VFR. I finally realized that I had to choose between two poor options: 1. A high probability of running out of fuel in flight if I continued trying to fly past the cloud layer. 2. Descend through the cloud layer, even though I am only VFR rated.

What Would You Have Done?

Situation #2: (C172 Pilot's Report)

■ *I am a member of a club which gives me access to four C172's. I typically fly one of the160HP models. On this trip, however, I would be carrying four adults and the airplane I took on that day was a 180HP model. It was the only plane with enough useful load to carry all of us. So, I chose to fly an airplane that I had never flown before. I got some performance information from the club's website (50 gallon, long-range tanks, 8.7 gallons/hour fuel burn, and a cruise speed of 128 knots). I used those numbers to calculate that I could fly for 5 hours and 15 minutes before reaching my 30-minute reserve. I purchased [flight planning software] earlier in the week and used that to calculate that the trip should take just under 4 hours so I thought I had plenty of fuel. Once the flight was under way, I learned that the cruise speed was more like 120 knots (at 2,400 RPM), the headwind was stronger than I had planned for and I was only achieving a ground speed of around 100 knots. However, my GPS told me that I would still be able to make [my destination] in less than 5 hours. I failed to note our exact time of departure.*

What Would You Have Done?

Situation #3: (B737 First Officer's Report)

■ *It started when we were on [a published arrival] and told to hold. Dispatch gave us an alternate with an enroute fuel burn of 2,800 lbs. We were currently around 7,700 lbs. so we should have diverted then. We told ATC we wanted to divert but then they said to wait three minutes. We waited and then received clearance and vectors for the approach. Once on approach, at 6,500 lbs. on the fuel, at about 1,000 feet, we got a windshear warning and we executed*

a go-around. At this point, we had 5,900 lbs. of fuel. We were getting backed into a corner. We didn't have enough fuel for the alternate and the weather was not getting any better at the [destination] airport. We told the Controller we wanted vectors for [a nearby Air Force Base] and we were approved. Everything was fine. Then ATC said the Base was closed. Approach vectored us back around for the approach. We were coming in for a flaps 30 landing. Once again at about 1,000 feet, we received a "Windshear, Go Around" command from the aircraft.

What Would You Have Done?

The Rest of the Story: The Reporter's Actions

Situation #1: (C170 Pilot's Report)

The Reporter's Action:

■ *I chose to descend through the cloud layer. I set up a heading toward a nearby airport reporting a high ceiling, stabilized the descent, and descended on instruments. The layer was not very thick, but I did not maintain VFR cloud clearance requirements. Center would have known where and at what altitude I was from my transponder. Hopefully there was no other airplane cruising in that layer…. After breaking out, I landed and refueled. Remaining fuel was minimal. I then continued on to my destination….*

This is only about the third time that I have ever proceeded on top of an undercast. I did not plan to do it. I did not have adequate weather information to commit to that course of action, particularly with the fuel on board….

The jam I got myself into was my responsibility, caused by my poor decisions and not leaving a legal and safe way out. Fortunately, the minimal instrument time that I get every two years during biennial flight review allowed me to keep the airplane under control.

(Ed. note: Air Traffic Control is ready and willing to lend assistance to pilots who find themselves in unforeseen difficulty. Establishing verbal communications with ATC, when able, may ensure that the situation doesn't go from bad to worse.)

Situation #2: (C172 Pilot's Report)

The Reporter's Action:

■ *Approaching [the destination], the fuel gauges began to dip near "E," but I've never trusted fuel gauges in airplanes and instead trust my math to determine my range. So, I refused to believe the gauges and continued to proceed (although the gauges did make me a bit nervous). After I had contacted Approach…the engine started to cut out. I informed the Controller that I had run out of fuel. He told me to look for the North/South highway. While I looked, I tried switching the fuel selector to "Left" and to "Right." It had previously been set to "Both." This did not help. I found the highway and felt that I could make it as long as the engine didn't quit completely. The engine did cut out completely once I was within a few hundred feet of the highway, but I had already made it at this point…. I touched down on the highway and was very fortunate that traffic was able to see me land and stopped behind me.*

In reflecting upon my mistakes, I can find many. To start with, I used numbers from the club website to do my trip calculations rather than consulting the POH. I did not confirm the accuracy of the numbers with other club members who had plenty of experience in the airplane. I had far too much confidence in numbers that I did not know from experience to be accurate. I failed to check the exact time of departure when we took off. I did not trust the fuel gauges when they were nearing empty. I've never trusted those gauges and assumed wrongly that they would go well under "E" like most cars do. I was stubborn and believed that my math was correct and more accurate than the gauges. I failed to inform the controller upon initial contact that I had minimal fuel… I learned many valuable lessons from these mistakes and am very thankful that my friends and I are still here to benefit from what I've learned.

Situation #3: (B737 First Officer's Report)

The Reporter's Action:

■ *The Captain, knowing we were at 5,200 on the fuel, [the Air Force Base] was closed and the weather was not getting any better, made the decision to use his Captain's emergency authority and land the airplane. We landed the plane safely without any damage.*

The lesson learned from this situation is that when you decide to divert, just do it. You have to stick to your guns. I think the Captain did the best job he could and once we were in the bad predicament, we exercised great CRM and landed safely.

ASRS Alerts Issued in December 2011	
Subject of Alert	**No. of Alerts**
Aircraft or aircraft equipment	9
Airport facility or procedure	4
ATC equipment or procedure	2
TOTAL	**15**

385

A Monthly Safety Bulletin from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

http://asrs.arc.nasa.gov

December 2011 Report Intake	
Air Carrier/Air Taxi Pilots	2835
General Aviation Pilots	748
Controllers	540
Cabin	238
Mechanics	146
Dispatcher	68
Military/Other	15
TOTAL	**4590**

CALLBACK

From NASA's Aviation Safety Reporting System

ASRS

Issue 390 July 2012

What Would You Have Done?

This "interactive" issue of *CALLBACK*, deals with two situations that involve General Aviation Pilots' encounters with weather and one that involves an Air Carrier Flight Crew's response to a strange noise on takeoff. In "The First Half of the Story" you will find report excerpts describing the situation up to the decision point. It is up to the reader to determine the possible courses of action and make a decision (preferably within the same time frame that was available to the reporter).

The selected ASRS reports may not give all the information you want and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to exercise your aviation decision-making skills. In "The Rest of the Story…" you will find the actions actually taken by reporters in response to each situation. Bear in mind that their decisions may not necessarily represent the best course of action. Our intent is to stimulate thought, discussion, and training related to the type of incidents that were reported.

The First Half of the Story

Situation #1: (PA-28 Pilot's Report)

■ *I had planned to make a VFR flight with plenty of time to get to [my destination] before dark. I was told by the weather briefer that the entire route of flight was showing unrestricted visibility.*

I departed…with full fuel…and about 20 miles of visibility. [After I was airborne] I heard a transmission from the Tower to another aircraft cut out in mid-sentence. My radio (receiver) had just failed.

About 15 miles out, I attempted to contact Approach to see if I could get cleared through the Class C airspace instead of going around. I did not hear a response. I set my DME equipment to the VOR and kept an arc distance of 12 DME which would keep me out of their airspace and bring me right to [my destination].

Approximately two miles out, the visibility dropped to about six miles. I…set myself up for a right base to Runway 24. At 600 feet AGL, the lights of the city became hazy and then the airplane entered a dense bank of fog sweeping in from the ocean. I entered the fog because my line of sight and visibility on the approach looking down from 600 feet was steeper than my actual line of descent, and I could not see the fog against the background of the ocean.

Going right to the instruments and calling upon my recent instrument experience, I stopped my descent and climbed to 800 feet before starting a left 180-degree, standard-rate turn. I returned to visual conditions about 15 seconds after reversing course…. The visibility was deteriorating rapidly…. As I climbed above 1,000 feet, I set a course back to [departure airport]. I noticed that dense fog was obscuring the ground below me at an unimaginable rate. Within 10 minutes I was going to be trapped on top. Then, right on cue, my GPS quit.

I attempted to contact Approach again to see if they could provide me with the weather information at [departure airport], and at [alternate airport] because if conditions were deteriorating as rapidly as they were here, it would be socked in IFR before I could get home. I did not hear the transmissions coming from Approach, so with a marginal safety window getting smaller and smaller, I told myself that…a diversion to [alternate airport] was the best option. It was the closest airport, had the longest runway around, and had a VOR with DME. Other than the occasional hole just large enough to glimpse a baseball field or parking lot through the intensifying clouds below me, I had no ground reference to navigate by. The conditions above 1,500 feet were VMC with about 10 miles of visibility.

What Would You Have Done?

Situation #2: (C172 Pilot's Report)

■ *I departed VFR…. The Cessna 172 contained full fuel (40 gallons usable) and one passenger. One fuel stop was planned. The calculated time enroute was 2 hours 45 minutes. During climb out, a hand-off to Center was made and the initial climb was to 11,500 feet. The climb was continued to 13,500 feet to fly over the scattered clouds and maintain VFR. Approximately one hour into the flight, I realized that continuing on to my destination VFR was not possible as the cloud tops were building faster than expected and the clouds were broken to overcast. Initially a 180 degree turn to the west was considered, but the cloud tops looked to be building above my current altitude. The clouds below and to the north were now broken and a VFR descent might be possible.*

High clouds appeared to block the route to my alternate. I made the decision to descend below the clouds and possibly land at [another airport] to the west since visual

contact was made there earlier during the flight out. Upon descending below the cloud layer, continuing VFR was not possible. I requested landing at [the alternate airport] with an instrument approach and was advised that the ILS approach had greater than 25 knots of tail wind and sky conditions were 200 overcast.

What Would You Have Done?

Situation #3: (A319 Captain's Report)

■ *During the initial part of the takeoff roll, at approximately 40 knots, three or four faint beeps were heard. The source of the beeps was unknown. There were no ECAM messages and no lights illuminated anywhere in the cockpit that would indicate an abnormality.*

What Would You Have Done?

The Rest of the Story: The Reporter's Actions

Situation #1: (PA-28 Pilot's Report)

The Reporter's Action:

■ *At 10 miles I started to give advisory position reports in case they had other operations going on at the time. My next position report was at 7.2 miles and again I did not hear a response. At this time, I thought that the error might be on my end and, in such close proximity to a large airport, I decided the best course of action was to try them on 121.50. I stated my position and heading again and that my intentions were to overfly the field and see if I could locate the runway through one of the last remaining holes in the solidifying layer while I circled. I also could not hear the controller's attempts to communicate with me on that frequency. In a final attempt to communicate with the approach controllers and advise them of the urgency of the situation, I selected 7700 on my transponder. At about one mile DME, I asked them to turn the lights up as high as they would go so I would have a better chance of seeing them through the cloud deck. As I watched the DME come within .2 miles and my VOR indicator switch from TO to FROM, I knew I was right over the field. I told my passenger to look out the window for runway lights…. She spotted the runway…and I made a turn to the left.*

I entered a left base and…my once clear view of the runway lights began to disappear right in front of me. At 400 feet AGL there was nothing more than a dim glow surrounding each light. Finally, passing through 300 feet, I broke out… and had about 3,000 feet of runway remaining. We had an uneventful landing. When we got out of the plane, all the holes in the sky were gone.

Since I could not communicate, I erred on the side of caution and decided the best thing to do was to get the airplane on the ground considering the rapidly deteriorating conditions. The only thing going through my mind was I've been to quite a few aviation safety FAAST (FAA Safety Team) seminars and have heard of so many fatal accidents in which pilots had multiple opportunities to get the airplane on the ground and chose to continue on or try the same approach that didn't work the last three times because they didn't want to cause a commotion or get in trouble.

Had the handheld radio in my flight bag been charged, Approach could have warned me as to the strong possibility of [destination airport] being IFR by the time I got there. A GPS can do many things, but a controller will always be there to provide vectors, frequencies, weather information, ceilings, and terrain clearance altitudes. Your radio can be your only lifeline in some situations.

Situation #2: (C172 Pilot's Report)

The Reporter's Action:

■ *I declared an emergency upon climbing to the IFR MSA of 9,000 feet since I expected severe icing, and requested vectors for the ILS approach into [the alternate airport]. At 8,000 feet MSL and entering IMC, the ice accumulation was rapid. The Localizer Approach was flown and a missed approach was made. Upon climb out, the missed approach procedure could not be flown due to degraded aircraft performance. I saw the ground visually and turned back to the airport while staying clear of clouds. The airport was sighted and I landed without further incident.*

Looking back, I should have never made the decision to descend since I was in VMC, maintaining VFR. Instead I should have consulted with ATC/FSS and made a more informed decision with updated weather. Once I realized that continuing on VFR was not possible due to weather building faster than I had expected, I could have also opened an IFR flight plan to continue onto my destination or diverted south where weather was predicted to be better. I did not want to fly into IMC since I suspected icing in the clouds.

Situation #3: (A319 Captain's Report)

The Reporter's Action:

■ *The takeoff was rejected at about 50 KTS. Upon clearing the runway, I realized that the beeps were from my phone. It was in the Airplane Mode, however, when the low battery warning sounds it makes a beeping noise. The battery charge was low.*

ASRS Alerts Issued in May 2012	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	4
Airport Facility or Procedure	8
ATC Equipment or Procedure	3
Maintenance Procedure	2
TOTAL	**17**

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A Monthly Safety Bulletin from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

http://asrs.arc.nasa.gov

May 2012 Report Intake	
Air Carrier/Air Taxi Pilots	3396
General Aviation Pilots	1128
Controllers	789
Cabin	313
Mechanics	195
Dispatcher	82
Military/Other	29
TOTAL	**5932**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 396 January 2013

What Would You Have Done?

This "interactive" issue of *CALLBACK*, presents three in-flight situations that involve General Aviation Pilots and one takeoff scenario that involves an Air Carrier Flight Crew. In "The First Half of the Story" you will find report excerpts describing the situation up to the decision point. It is up to the reader to determine the possible courses of action and make a decision (preferably within the same time frame that was available to the reporter).

The selected ASRS reports may not give all the information you want and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to exercise your aviation decision-making skills. In "The Rest of the Story" you will find the actions actually taken by reporters in response to each situation. Bear in mind that their decisions may not necessarily represent the best course of action. Our intent is to stimulate thought, discussion, and training related to the type of incidents that were reported.

The First Half of the Story

Situation #1 (C172RG Pilot's Report)

■ *On departure, the gear retracted normally. However, immediately after retraction I heard a loud "POP" followed by a call from Tower indicating that my left main gear had retracted then fallen down again. Another aircraft behind me confirmed seeing the same thing.*

The aircraft has a gear mirror installed on the right wing which allowed me to view all three gear. The left main was in a trailing position. The nose and right main were retracted. I cycled the gear. The left main didn't move from its in-trail position.

I advised Tower that I would troubleshoot the gear and tried yawing the aircraft and maneuvering so as to swing the gear with inertia into the locked position…. Unable to retract or extend the gear, I made a call…to an A&P to confirm my suspicion that it was most likely the gear actuator that had broken loose from the pivot point…. I could land with the right main and nose gear down and locked or fully retracted. I could also land under power or secure the engine and try to save the engine and prop.

What Would You Have Done?

Situation #2 (PA-31 Pilot's Report)

■ *I had planned to leave at 0730, but the weather was 500 foot ceiling and 2 miles visibility. The lowest approach minimum at [my destination] was 1 mile visibility and 800 foot ceiling. The runway was short (2,000 feet) and there were no approach lights. I waited over two hours for the weather to improve, but it didn't. I decided to request a Special VFR clearance after phoning the destination FBO. They told me the visibility there was at least 3-4 miles and the ceiling was definitely 500 feet or better. I assumed the ceiling would be at least 500 feet all the way on the 4-5 minute flight. When I got a few miles east of the airport the ceiling suddenly dropped and I had to decide whether to stay at 500 feet AGL and pop into the clouds or descend to remain clear.*

What Would You Have Done?

Situation #3 (SR22 Pilot's Report)

■ *When I had flown the route IFR earlier in the day the ceilings were about 3,500 to 4,000 feet. I decided to make the return trip VFR with flight following and stay under the 3,000 foot floor of the…Bravo airspace since that is what ATC would have had me do had I filed IFR. All was well until I reached the shoreline. I was at 2,700 feet and I was cleared by Approach through the Class D at or above 2,500 feet, but I had to stay below the Bravo airspace at 3,000 feet. As I reached land, the ceiling dropped to just about 2,700 feet so I descended to 2,500 feet, but that still put me in the base of the clouds. Then ATC warned me about traffic ahead on a missed approach and suddenly I found myself trapped in and out of the clouds, unable to descend without busting the Delta airspace. Meanwhile I could not see the traffic which was being called out straight ahead by the traffic warning system.*

What Would You Have Done?

Situation #4 (B737 Captain's Report)

■ *On takeoff roll approaching 80 knots, the Tower Controller called us and said in a very slow, unsure voice, "[Callsign 1…2…3…4…](pause)." He sounded as if he had something to tell us, but did not know what to say. We both*

noted a tone of concern and hesitation in his voice as if he was still unsure of something at that moment. We were light weight and had 13,000 feet of runway ahead of us. We had to make an immediate decision.

What Would You Have Done?

The Rest of the Story

Situation #1 (C172RG Pilot's Report)

The Reporter's Action

■ *At the cost of an engine and prop, but with significant risk reduction, I elected to land under power with right main and nose retracted. I contacted Tower, advised of our situation… and our intention to land gear up…. We landed uneventfully on the centerline with a soft, controlled, low energy touchdown; no fuel leaks, no hydraulic leaks, no oil leaks, no fire, and no injuries. The damage to the airframe was pretty minimal, however the propeller was obviously destroyed and therefore the engine will require teardown.*

I felt it appropriate to make a report to document the decision-making on landing under power which I would highly recommend rather than making the error of "trying to save the engine and prop" and reducing options on landing. Because the sink was greater than I anticipated, I did need to add additional power just prior to touchdown. Should I have tried to "save" the engine, it would have made for a solid impact with the runway increasing damage to the airframe and possibly resulting in injury. Leaving the engine running, I was able to make a gentle, low energy touchdown. The resulting sensation in the cockpit was like a normal landing (louder, but normal forces), zero injuries, and a happy outcome. Again, I would highly recommend a low total energy touchdown under power for anyone finding they need to make a forced gear-up landing. The aircraft, engine, propeller can all be replaced and it's not worth "trying to save" a machine at the cost of possible injury.

Thank you for providing the Aviation Safety Reporting System. As a long-time pilot, I find this open sharing of information valuable to aviation safety.

Situation #2 (PA-31 Pilot's Report)

The Reporter's Action

■ *I decided to descend and went down to what I estimated to be about 350 feet AGL. Even though it was a sparsely populated area, I flew over two housing developments below 500 feet AGL. At three miles out, I saw the airport and runway, and the ceiling increased. I made an uneventful landing and it wasn't till after I got out of the plane that I realized that I had busted the regulation for minimum altitude over a structure or vehicle. The basic cause was that I had made a false assumption that the ceiling would be at least 500 feet all the way since the two airports were only 10-11 miles apart. This was definitely a case of poor judgment on my part. In the future, I will not assume that the ceiling will remain uniform and give myself more margin for error. I should have waited until the ceiling was at least 800 to 1,000 feet. My desire to get an annual underway ASAP at [my destination] also played a role similar to the old "get-home-itis."*

Situation #3 (SR22 Pilot's Report)

The Reporter's Action

■ *I was able to turn into clear weather over the airport, away from the traffic, but busted VFR minimums and descended into the top 100 feet of the Delta airspace. I should have monitored the ATIS while I was over the ocean and asked for a clearance when it was clear I could not maintain VFR minimums (although it turned out to be mostly clear directly over the airport) or circled when the weather closed in and asked for a clearance. Next time I will get the clearance first and cancel if the weather accommodates.*

Situation #4 (B737 Captain's Report)

The Reporter's Action

■ *I elected to initiate rejected takeoff procedures. During deceleration the Tower Controller said, "Disregard."*

The sound of one's voice, the tone and force, all convey a message. I did not like the message I was receiving and could not gamble that he was trying, but unable, to warn us of something ahead. I would take the same action again.

(From the First Officer's report on the same incident)

I believe the rejected takeoff was the right thing to do. When you get a call from Tower at that point in the takeoff roll, the first thing that pops into your mind is "something's wrong." In the few seconds before he finished his thought, we were left to guess what the call was about. We were still relatively slow speed on the roll, so the Captain did what was prudent and safe by rejecting.

ASRS Alerts Issued in November 2012	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	1
Airport Facility or Procedure	7
ATC Equipment or Procedure	4
Maintenance Procedure	1
Company Policy	1
TOTAL	**14**

396

A Monthly Safety Bulletin from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

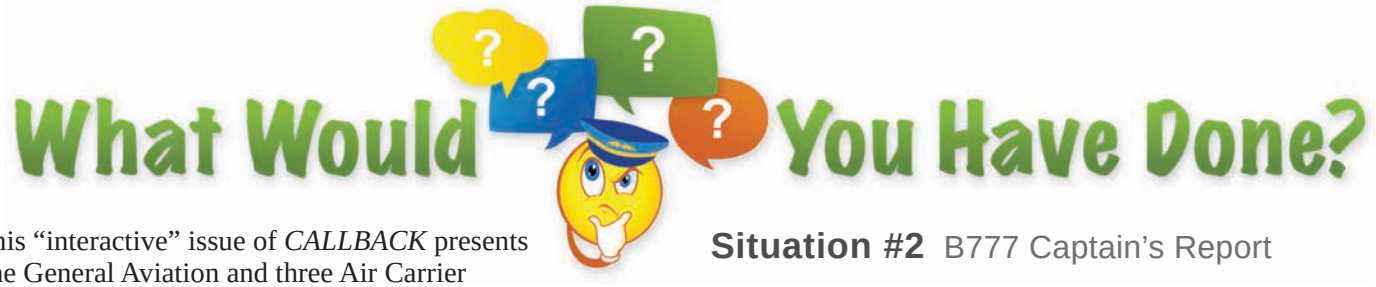
http://asrs.arc.nasa.gov

November 2012 Report Intake	
Air Carrier/Air Taxi Pilots	3498
General Aviation Pilots	1064
Controllers	654
Cabin	275
Mechanics	130
Dispatcher	77
Military/Other	17
TOTAL	**5715**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 403 August 2013



This "interactive" issue of *CALLBACK* presents one General Aviation and three Air Carrier reports. In "The First Half of the Story" you will find report excerpts describing the event up to a decision point. You may then use your own judgment to determine the possible courses of action and make a decision regarding the best way to resolve the situation.

The selected ASRS reports may not give all the information you want and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to exercise your aviation decision-making skills. In "The Rest of the Story…" you will find the actions actually taken by reporters in response to each situation. Bear in mind that their decisions may not necessarily represent the best course of action. Our intent is to stimulate thought, discussion, and training related to the type of incidents that were reported.

The First Half of the Story

Situation #1 SR22 Pilot's Report

■ *[In cruise] our Number One alternator failed. We tried to bring it back online without success. Since we still had Number Two alternator and had run the checklist with appropriate equipment shutdowns, we elected to continue the flight. We were on an IFR flight plan, but we were in VMC the entire route…. We were given instructions direct to [destination] and a descent from 9,000 to 5,000 feet. At approximately 7,500 feet ATC asked us to confirm our altitude. They were showing 10,800 feet. They asked us to shut off the transponder altitude encoding at that time. A few minutes later we noticed the battery was down to 24 volts from 28 and that alternator Number Two appeared not to be charging the battery any longer. A few minutes later ATC instructions became unclear and unreadable. We realized what was happening and at that time the battery failed completely despite not getting a failure light on alternator Number Two.*

What Would You Have Done?

Situation #2 B777 Captain's Report

■ *After departure…we were advised to re-contact [ATC] in regard to tire fragments found on our departure runway. We…were told that tire fragments had been found and that airport personnel thought they could have come from our aircraft. In the course of conversations with the different agencies involved we also heard that the fragments found were too small to be identified with our particular aircraft. What the ground crews had found indicated that the entire tire had been "exhausted."*

We immediately initiated a synoptics check of our aircraft, keying on the FUEL and GEAR pages. The LANDING GEAR page indicated that all tire pressures and temperatures were normal with no notable variations. In addition, there were no abnormalities in the fuel system or any other system in the synoptic pages reviewed. There were no EICAS messages received. We contacted our Operations and relayed all of the information. We received a reply stating that, 1) the original call from [the departure airport] was made to all aircraft departing within a certain time frame (not just ours) and, 2) Maintenance Control found no abnormalities in their system monitors of our aircraft.

What Would You Have Done?

Situation #3 Air Carrier Captain's Report

■ *[We were] in a normal descent, cleared to 7,000 feet. Upon reaching 7,000, we asked for lower. There was no answer. We troubleshot the radios, but were unable to establish communication with Center. The aircraft was 22 miles out [from destination] and we needed to descend to make the approach. Weather precluded operations north of the field. The Tower was closed.*

What Would You Have Done?

Situation #4 CRJ900 Captain's Report

■ *Before departing...the First Officer and I discussed the Flaps 20 required for Runway 19R. The First Officer even*

highlighted it on the TOLD (Takeoff and Landing Data) card. We were given a flow time which would give us about 10 minutes from pushback. We went through the After Start Check while I was listening to Ground move an aircraft behind us. I was thinking with our flow time we would need to be moved. During this time I believe we both agreed to the normal Flaps 8. We were then given the short taxi instruction. We began a Taxi Check and…a moment later we were cleared onto the runway. Still thinking we had at least a couple of minutes, we accepted the clearance and tried to get confirmation that the Flight Attendants were ready. While entering the runway, we were cleared for takeoff. I told Tower that we were waiting for the Flight Attendants and would need another minute. He cancelled our takeoff clearance and had us hold in position. We had finished the Taxi Check and were now trying to get the Takeoff Check done. We were quickly given a new takeoff clearance and advised that traffic was on final. We let ourselves be rushed and missed the flap setting again.

During the takeoff roll, in the high speed segment, the First Officer announced that the flaps were not set to 20.

What Would You Have Done?

The Rest of the Story...

Situation #1 SR22 Pilot's Report

The Reporter's Action

■ *We squawked 7600 and, due to the time of day and anticipated congestion into [destination], I elected to maintain VMC conditions and divert west to an uncontrolled field…. I broke off the IFR clearance once we lost radio contact (and our entire electrical system) as I thought it the safest and most prudent decision to avoid potential conflicts with other aircraft and a landing at [destination] which is an extremely busy airport during rush hour.*

We continued the flight VMC and entered a long downwind after a quick overflight of the airport to view any possible traffic and wind conditions. We landed without any electrical equipment or flaps as they are fully electrical in this aircraft.

We spoke with ATC via telephone immediately after landing to advise what had happened.

Situation #2 B777 Captain's Report

The Reporter's Action

■ *We continued the flight. Repeated checks enroute verified that there were no indications of tire damage or loss of pressure and no fuel problems. The landing…was totally uneventful as was taxi to the ramp. However, after exiting the aircraft, we saw maintenance personnel clustered around the right main gear assembly. The Number 12 tire, although still fully inflated, had suffered a separation of the entire tread belt. Resulting damage was evident on the trailing edge of the wing flap and an access panel on the underside of the right wing. In addition, there were numerous rubber scuff markings on the entire area.*

Situation #3 Air Carrier Captain's Report

The Reporter's Action

■ *We squawked 7600 and complied with lost communication procedures.... We continued to the Initial Approach Fix, descended to 3,000 feet, switched to CTAF frequency and made normal radio calls. At approximately two miles out on the ILS, Tower queried us, although they were not yet open, and said that Center's radio was inoperative. They said that they could hear us and asked if we were squawking 7600… We continued the approach to landing. I asked if there were any problems with what we did and Tower said that Center told him that we did exactly what they expected.*

Situation #4 CRJ900 Captain's Report

The Reporter's Action

■ *My first reaction when I looked up from the airspeed was to abort, however when I saw what little runway was left at the high speed we were traveling, I felt a rejected takeoff would be more dangerous and decided to continue while adding the flaps. We rotated normally and climb out was normal.*

I feel this was a perfect storm of events that led us to err. In the future, if I sense we are being rushed, I will advise ATC how much time we will need to be ready well in advance of being on the runway. Also to prevent this in the future I will touch the flap lever while looking at the TOLD card.

ASRS Alerts Issued in June 2013	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	2
Airport Facility or Procedure	1
ATC Equipment or Procedure	3
TOTAL	**6**

403

A Monthly Safety Bulletin from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

http://asrs.arc.nasa.gov

June 2013 Report Intake	
Air Carrier/Air Taxi Pilots	3,909
General Aviation Pilots	1,076
Controllers	792
Flight Attendants	287
Dispatchers	233
Military/Other	138
Mechanics	127
TOTAL	**6,562**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 409 February 2014

Once again *CALLBACK* offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story" you will find report excerpts describing the event up to the decision point. You may then use your own judgment to determine the possible courses of action and make a decision regarding the best way to resolve the situation.

The selected ASRS reports may not give all the information you want and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to exercise your aviation decision-making skills. In "The Rest of the Story…" you will find the actions actually taken by reporters in response to each situation. Bear in mind that their decisions may not necessarily represent the best course of action. Our intent is to stimulate thought, discussion, and training related to the type of incidents that were reported.

The First Half of the Story

Situation #1 Cessna 210 Pilot's Report

■ *I was on an IFR flight plan…in cruise at 8,000 feet. The autopilot stopped operating. While I was troubleshooting the problem, I noticed that the battery charge was low and falling rapidly. I attempted to notify Approach of the problem and believe that they understood that I…was about to lose communications…. I started turning off some electrical systems in an attempt to save battery power while troubleshooting the alternator. It did not come back online and I turned off the battery to conserve what power remained. I attempted to make radio contact with a hand-held radio, but either its transmissions were too weak or its battery was too low…. I had a hand-held GPS, an iPad and an ADS-B receiver to use for navigation and weather avoidance....*

To continue along my flight planned route would be hazardous due to thunderstorm avoidance, a possible frozen pitot tube and potential conflict with other aircraft without transponders. During a break in the IFR conditions, I observed clear air to the southeast and turned toward it…. I decided to continue in the clear air and…descend to a VFR altitude below the cloud bases. Once I got to the east of the line of storms, I turned south paralleling the line of storms…. The more time passed, the more [battery] charge returned…. If I continued on to [destination] there was a reasonable chance that the battery would have sufficient power to lower the gear…[without] an emergency extension procedure….

I…was able to make radio contact briefly. I stated my situation, cancelled IFR and explained that while I was likely to lose contact again, I was going to continue on to my destination. The Controller was very helpful and asked if I required assistance and mentioned that [an alternate field] was to the east if I wanted to land there.

What Would You Have Done?

Situation #2 C45 (Beechcraft Model 18) Pilot's Report

■ *The aircraft I was flying…did not have a current altimeter and static system inspection which prevented me from filing an IFR flight plan.*

Weather analysis indicated a thin overcast layer with bases between 500 and 900 feet AGL and a second overcast layer at around 7,000 feet. It was VMC 30 miles to the northeast, the direction of my flight. The forecast indicated the low cloud layer would dissipate before reforming with IMC persisting for the remainder of the day.

My plan was to be ready to go when the low cloud layer opened up…. I was comfortable with the fact that I could end up between layers because there was plenty of cloud clearance and visibility for VFR flight…to the clear weather along my course….

When the lower layer opened up…I was granted a Special VFR clearance. Moments prior to takeoff, the lower layer closed back up and the tower advised the ceiling was 700 broken. I thought that I could takeoff, fly to the open area safely, and climb above the lower layer, all while complying with the FARs. I was wrong.

After takeoff…I was…trying to fly toward the area where the lower cloud layer was open. As I pressed on, I realized that the open area I intended to climb through was gone. However, I felt okay as I was still 600 to 700 feet above the ground and clear of clouds.

That didn't last long. The ceiling began to lower and my comfort level rapidly decreased. I was unable to maintain a minimum safe altitude and remain clear of the clouds. I had lost track of where to turn toward better weather. While I was high enough that I was not concerned about flying into terrain, I became very concerned about radio towers…. I realized that I could become a VFR into IMC statistic.

What Would You Have Done?

Situation #3 EMB-145 First Officer's Report

■ *Takeoff was normal. At around 400 feet, Tower…[advised] that our left engine was producing smoke. No specifics were given on the amount or color. Tower then asked for our intentions…. Both the Captain and I checked engine and all system instruments. There were no abnormal readings. We could not detect any smell of smoke or any abnormal flight characteristics…. We said we would continue and Tower handed us off to Departure. Departure told us they had received the smoke notification from the Tower. We checked all our instruments and systems again and could still not find any faults.*

The Captain then called…Maintenance Control. They said that it was most likely the cold engines that had just warmed up combined with the cold temperature of -2C.

What Would You Have Done?

The Rest of the Story...

Situation #1 Cessna 210 Pilot's Report

The Reporter's Action

■ *Given…the fact that I could navigate VFR around the weather and any airspace, and possibly avoid an emergency gear extension, I declined to land [at the alternate airfield]. I lost contact as the battery charge dropped again. I continued VFR to the southeast around the line of storms. A few minutes out, I slowed the aircraft, turned on the battery and had enough charge to extend the gear. With all other electrical off, other than the rotating beacon, one NAV Comm and the transponder squawking VFR, I made radio calls for the pattern and performed a no flap landing.*

In reviewing my decision making in this situation, I believe that the decision to get into VFR flight conditions was a good one as well as to use these conditions to navigate around the storms. I might second guess my decision not to land at [an enroute alternate].

Situation #2 C45 (Beechcraft Model 18) Pilot's Report

The Reporter's Action

■ *My only remaining option was to initiate a climb through the lower layer up to VMC above. As I entered the clouds, I began to think about calling Center to confess my predicament and declare an emergency if necessary. The good news is that after climbing 500 feet I broke out between layers in VMC. Since I was still below any usable IFR altitudes and no longer needed any assistance, I did not call center.*

I determined my position by referencing the VOR and GPS and proceeded on course. In reviewing the airspace [in the area], I realized that I probably went through the edges of the Class D and Class E as I searched for the opening in the lower layer. I am not sure my Special VFR clearance covered this possibility.

I have flown many years and I am very comfortable flying VFR and IFR, even VFR when the ceiling is low as long as the visibility is as good as it was this day. However, I let my comfort level lull me into departing without a viable Plan A and no Plan B.

Situation #3 EMB-145 First Officer's Report

The Reporter's Action

■ *We continued the flight and no problems were encountered….*

While in cruise, the Captain and I reviewed the situation and both agreed that we should have returned after Tower notified us of the smoke. We both agreed that it would have been better to have erred on the safe side and returned, as opposed to continuing based on our instrument indications and flight characteristics.

ASRS Alerts Issued in December 2013	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	6
Airport Facility or Procedure	6
ATC Equipment or Procedure	2
Company Policy	1
Other	2
TOTAL	**17**

409

A Monthly Safety Bulletin from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

http://asrs.arc.nasa.gov

December 2013 Report Intake	
Air Carrier/Air Taxi Pilots	4,410
General Aviation Pilots	943
Controllers	630
Flight Attendants	257
Mechanics	146
Dispatchers	103
Military/Other	74
TOTAL	**6,563**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 421 February 2015

What Would You Have Done?

Once again *CALLBACK* offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story" you will find report excerpts describing the event up to the decision point. You may then use your own judgment to determine the possible courses of action and make a decision regarding the best way to resolve the situation.

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The First Half of the Story

Situation #1 C172 Pilot's Report

■ *The weather briefing advised my route was VFR and forecast to be so until around 0300 local time…. Enroute the weather quickly deteriorated. I noticed larger cumulonimbus clouds forming around me and a thick cloud deck forming in front of me. I opted to drop my altitude to 3,500 feet to maintain VFR cloud clearance and duck below it. Once the weather opened up I decided to climb to 5,000 feet to get a better look at what was going on around me. I saw that the weather was worse than I thought. It was solid IMC everywhere and deteriorating rapidly….*

I started checking different enroute weather services to get a picture of what was going on. At this point I had 1.3 hours of fuel left and realized that any airport within range was heavy IMC…. I decided to continue towards [my home airport]…. I maintained 1,000 feet above the cloud deck for some form of traffic separation, but could not see the ground as it was a solid [layer].

Shortly after, both NAV 1 and NAV 2 failed, but DME was still operational. I then attempted to call Center for vectors and help, but to no avail. It appeared my radio could receive but not transmit. I then attempted to navigate via my iPad, but the battery died shortly after. At this point the weather had gotten so poor that flying through clouds became unavoidable. I was in complete IMC. I executed an emergency 180 using my turn coordinator and my stopwatch and held that heading for a few minutes. Realizing it wasn't improving, I decided to climb to get above the deck once again for traffic separation. I climbed for approximately 20 minutes and popped out above the deck at 10,000 feet. It was solid overcast as far as the eye could see…. At this point, I was very disoriented as to where I was, and had no way to call for help.

What Would You Have Done?

Situation #2 PA28 Pilot's Report

■ *When the throttle was retarded from full power to cruise after a practice power-off stall recovery maneuver was completed, the throttle cable broke causing the engine to run at full power. I took control from the student while bringing the [throttle] to idle to confirm we couldn't run at any less power. The power continued to read between 2,500 and 2,700 RPM (redline for the prop). I declared an emergency with [the TRACON], whom I was already using for radar services, and diverted to [a nearby airport] with a longer runway than our home base. At this point it became apparent I could not maintain level flight without over-speeding the propeller.*

What Would You Have Done?

Situation #3 CRJ900 Captain's Report

■ *While descending…we entered IMC and icing conditions. We turned on our cowl and wing anti-ice. Shortly thereafter the EICAS indicated a master warning immediately followed by an Anti-Ice Duct Fail message. We then received Left and Right Wing Anti-Ice Fail messages.*

The First Officer and I complied with the appropriate QRH items and informed Approach that we were having issues with our icing system and requested an expedited ILS… and a lower altitude. Shortly thereafter we were out of icing conditions and decided an emergency did not need to be

declared…. We landed, taxied to the gate and contacted Dispatch to initiate a write-up with Maintenance.

We taxied out to a run-up area with Contract Maintenance to do several tests on the system…. Although the system checked out on the ground, the First Officer and I agreed that it still might not be safe. The reasons were several. The conditions within 150 miles were calling for icing from 3000 to 23,000 feet. Since we were limited to FL250 due to single pack operations, this was a serious consideration. It was also night time and a considerable portion of the flight would be over mountainous/remote terrain. While on the ground the aircraft experienced an Ice Detect 2 Fail status message. Simply resetting the system and having the message(s) disappear from the EICAS did not inspire confidence to depart under these conditions.

During a conference call with the company we explained our rationale. We fully understood this would inconvenience holiday passengers and that some might not understand why we did not depart in a plane that was legally signed off. Ultimately we were told that it was solely our decision.

What Would You Have Done?

The Rest of the Story...

Situation #1 C172 Pilot's Report

The Reporter's Action

■ *Using my DME, I determined where I was relative to the tuned VOR/DME by flying different headings and observing the DME's reaction. On my sectional chart I drew a line straight from the VOR, and determined I was roughly six miles south of [the departure airport]. I then turned direct north and held this heading for 10 more minutes to get far north of the field where I knew there were no obstacles while descending from 10,000 down to 2,000. Once [my passenger's] cell phone got signal, I pulled up a computerized satellite map and used that to line myself up with the runway coming from the north. I maintained a slow but steady descent as I continued essentially a poor man's GPS approach. I broke through the clouds at roughly 1,200 feet AGL and landed.*

Situation #2 PA28 Pilot's Report

The Reporter's Action

■ *I allowed the aircraft to stay in a slow climb, eventually ending up near the airport at [3,500 feet AGL]. While on a very high downwind I contacted Tower, was cleared to land, and elected at that time to pull the mixture back to begin the descent for landing. I briefed the student on how I planned to land, using the mixture to add "bursts" of power if necessary, and asked him to turn off the fuel and mags on my command.*

The glide went well. I had the student secure the [engine] once I was sure we'd make the runway and it was an uneventful touchdown.

Situation #3 CRJ900 Captain's Report

The Reporter's Action

■ *We elected to do it the next day during daylight and vastly better weather. During the flight we had a master warning immediately followed by an Anti-Ice Duct Fail. This caused our wing anti-ice protection to turn off. We quickly exited icing conditions. All QRH items were complied with and maintenance was given a heads-up via ACARS.*

ASRS Alerts Issued in December 2014	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	4
ATC Equipment or Procedure	5
Other	3
TOTAL	**12**

421

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

http://asrs.arc.nasa.gov

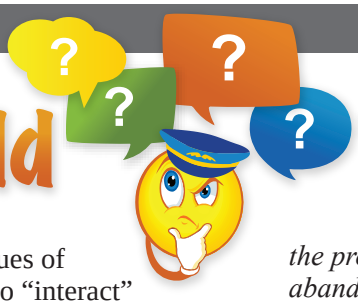
December 2014 Report Intake	
Air Carrier/Air Taxi Pilots	5,167
General Aviation Pilots	1,061
Controllers	543
Flight Attendants	450
Military/Other	220
Mechanics	188
Dispatchers	125
TOTAL	**7,754**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 433 February 2016

What Would You Have Done?



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The First Half of the Story

Situation #1 C172 Pilot's Report

■ *After exiting Class B, I requested a descent to maintain VMC as the cloud deck was getting denser. ATC approved a VFR descent. As I began my descent, I noticed that the broken layer was quickly closing. To avoid IMC, I climbed back to 5,000 feet. I informed ATC that I was on a VFR flight plan and was not instrument rated. I flew for another five minutes and then saw that what had been a broken layer had totally closed up.*

What Would You Have Done?

Situation #2 C182 Pilot's Report

■ *I climbed without incident to 6,000 feet where I was in and out of the cloud tops. About fifteen minutes into the flight, I noticed that the ammeter was discharging. I could not reestablish operation of the alternator. I contacted Center. I was given vectors to [an airport], cleared to descend to 2,100 feet, and cleared for a GPS approach. While making the procedure turn inbound, I began to experience icing, abandoned the approach, and climbed back to 6,000 feet. I requested to fly to [my original destination] where, hopefully, I would be able to do an ILS or surveillance approach. I informed Center that I would shut off all my electrical equipment to maintain as much battery power as possible. I continued to fly in the general direction of [my destination].... I turned the radio on and found that I had experienced a complete electrical failure.*

What Would You Have Done?

Situation #3 B737 Captain's Report

■ *During the approach we had visual contact with the airport. At about four miles the runway was in sight. There was no turbulence or rain. Tower advised that there was a microburst on Runway 27. About one mile out, we encountered moderate rain for about 15 seconds. I thought the previous aircraft had landed, so I continued as no turbulence or windshear conditions were being experienced.... I elected to leave flaps at 15 degrees in case a go-around was conducted (normal landing is 30 degrees flaps). Just as I flared for landing, we began to experience a strong crosswind from the right.*

What Would You Have Done?

Situation #4 B737 Captain's Report

■ *I turned off the autopilot/throttles as we intercepted LOC/glideslope and hand flew the aircraft. I called, "Gear down, Flaps 15." Under 170 knots, on glideslope and LOC, I called for Flaps 25. At approximately 1,500 feet and 163 knots I called, "Flaps 30, Landing checklist," but at the same time we experienced a gust and the First Officer hesitated due to our proximity to flap limit speed. He verbalized this and I acknowledged that I was slowing the aircraft. At this time there was a bright lightning strike just north of the field and several other flashes on both sides of the aircraft. There was also a radio transmission that interrupted us.*

We had 12 knots of tailwind from 1,500 feet down to 800 feet and I was completely "outside" flying the aircraft, thinking

windshear was possible and mentally prepping to execute a windshear recovery maneuver. I was focused on flying and landing on Runway 28. We started with light rain and as we approached the runway, rain increased to moderate, but the runway was in sight throughout. At approximately 400 feet AGL we got the caution, "Too low flaps," which startled us and I immediately looked at the flap indicator (at 25), then the gear (Down, three Green), and brakes (Armed, Green light).

What Would You Have Done?

The Rest of the Story...

Situation #1 C172 Pilot's Report

The Reporter's Action

■ *I circled back to find VFR conditions and discovered that the broken layer behind me had also closed up. I talked with ATC to get an update for field conditions at any airport close to my route of flight. I was advised that my best bet would be [a nearby airport]... and...I received vectors toward the airport. I was in solid IMC conditions and under ATC control. Less than a mile from [the airport], while still in IMC conditions, Approach informed me that the airport was now reporting an 800-foot overcast. I...asked if there was a better alternative and then flew under ATC control...to [another airport]....*

I informed ATC that I had some IFR training. I did not have my approach plates in my flight bag. Approach gave me a frequency to talk with the Controller who tracked my approach and descent. I broke out at approximately 1,400 feet and safely landed in significant crosswinds.

The weather was significantly worse than reported... and conditions worsened rapidly.

Situation #2 C182 Pilot's Report

The Reporter's Action

■ *I contacted Flight Service on my cell phone and then was given a number to contact Approach Control. The Controller informed me that I was 20 miles east of [an alternate airport] and suggested...that he could permit me to descend to 1,800 feet MSL. [The airport] was reporting a 1,800 foot overcast at that time. He gave me a vector to [the airport] and cleared me to descend to 1,800 feet. I broke out into the clear and, with the vector assistance, was able to land without incident.*

Situation #3 B737 Captain's Report

The Reporter's Action

■ *The aircraft wanted to drift left during rollout. As we slowed, control was regained and we taxied off the runway to the ramp. Later, another company pilot (who was waiting for takeoff) told me that the preceding and following aircraft had gone around. As mentioned, I believed the preceding aircraft had landed. In hindsight, I should have gone around and waited for better weather conditions.... This incident (although turning out OK) could have been serious.... The safer course would have been to go around. I will not hesitate performing a go-around next time.*

Situation #4 B737 Captain's Report

The Reporter's Action

■ *I directed the First Officer to select Flaps 30 and do the Landing check. I said, "We are not going around in this weather for that; the weather is too bad." The First Officer agreed and selected Flaps 30. The radar was showing red in all forward directions, but we did not encounter windshear. We landed normally in the touchdown zone.*

ASRS Alerts Issued in December 2015

Subject of Alert	No. of Alerts
Aircraft or Aircraft Equipment	19
Airport Facility or Procedure	9
ATC Equipment or Procedure	7
Hazard to Flight	3
Other	1
TOTAL	**39**

433

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December 2015 Report Intake

Air Carrier/Air Taxi Pilots	5,013
General Aviation Pilots	1,032
Flight Attendants	549
Controllers	450
Military/Other	391
Dispatchers	188
Mechanics	176
TOTAL	**7,799**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 441 October 2016

What Would You Have Done?

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The First Half of the Story

Situation #1 C150 Pilot's Report

■ *My mission for the day was to fly to look at an airplane I was considering purchasing. Another pilot, who had a VFR only Cessna 150, [offered] his airplane for the flight. The weather was forecast to be marginal VFR with some IFR along the route [and] ceilings of 800 to 1,000 feet, becoming broken to clear as the day progressed. The weather was forecast to be bad the following day, so I "had" to take the flight that day. To complicate issues, I needed to…pick my son up from school that evening.*

I was paying close attention to the weather enroute.… A couple stations near our destination [were] reporting marginal VFR broken conditions, and an airport near the destination was VFR. It took me another hour to realize that the VFR airport report was 4 hours old and was not being updated by ADS-B. I had received a weather brief earlier that day, and I supplemented it with my iPad, but my weather program was not updating. I was still on the 4 hour old weather at our departure time.

This plane literally had no equipment. We had a handheld transceiver and [a] portable, [ADS-B capable] GPS unit. We could get 5 miles of range out of the handheld on a good day. At least [we had] an attitude indicator. All the areas within range of our fuel supply were reporting anywhere from low IFR to 1,000 feet overcast ceilings and 5 miles visibility. We were now 2 hours into the flight, and I was waiting for the ADS-B to refresh.

What Would You Have Done?

Situation #2 LR-24 Pilot's Report

■ *We were departing a small…airport when a light twin landed [with a] gear malfunction [that] resulted in a belly landing. [That] aircraft came to rest in a position leaving approximately 4,000 feet of runway unobstructed.*

At [that] time, we had only started the number 2 engine and were sitting on the FBO ramp, having not moved from our initial parked position.… I began to deplane so I could offer assistance to the disabled aircraft.… The Captain stopped me and told me to sit down.… I objected, but [he] told me that he was keeping our schedule. He proceeded to taxi, and I had to stop him from blocking the path for an emergency vehicle. After the fire truck passed, several airport officials, two of whom were in uniform, crossed their arms over their heads and attempted to stop [our] taxi. I brought this to the Captain's attention,…but he proceeded to start the number 1 engine on the taxi roll, disregarding any checklist. Multiple aircraft on the approach to the airport reported, via UNICOM, that they were diverting because of the fouled runway.

What Would You Have Done?

Situation #3 B767 Captain's Report

■ *[Enroute to our destination], the crew noticed a fuel imbalance situation developing between the left and right main tanks with approximately 2,700 pounds remaining in the center tank. The left main fuel tank had approximately 40,000 pounds and the right had approximately 38,000 pounds with the "FUEL CONFIG" light illuminated. The crew balanced the fuel between tanks, [but also] noticed that the fuel quantity in the center tank was increasing slightly. The QRH was consulted. Nothing there seemed to apply to this situation. We relayed all the information up to that point to the Maintenance Representative.… The rate of transfer from the right main tank to the center was approximately*

3,100 pounds per hour. At that point we were informed by the Maintenance Representative that once the main tanks reached the halfway point in their burn (about 20,000 pounds per tank), the fuel transfer from the right tank to the center would cease.

What Would You Have Done?

Situation #4 CRJ-200 Captain's Report

■ *After leveling off at FL310, the number 1 engine power could not be reduced. The thrust lever was completely unresponsive. After trying to troubleshoot the problem, we both looked in the QRH and decided that the only checklist for our situation was, "Thrust Lever Jammed."... We called Maintenance on the radio to see if they might have a suggestion, [but they had no advice for our predicament].*

What Would You Have Done?

The Rest of the Story...

Situation #1 C150 Pilot's Report

The Reporter's Action

■ *We continued another half hour.... At this point, the left fuel gauge was bouncing off "E." We did find an airport at the very edge of our fuel supply that was reporting 1,000 foot broken ceilings, and [we] set course for it.... I...[chose] an airport well away from a major city that was reporting good visibility below the clouds and (reasonably) high ceilings. I dialed up an RNAV approach on my handheld, switched to UNICOM (figuring I could break things off if I heard another plane on the approach), and into the soup we went. We broke out of the clouds right at 1,000 feet, landed safely, and had 3 gallons of fuel remaining.... We waited a couple hours on the ground for conditions to improve, then continued to our destination. Lesson for the day: nothing, and I mean nothing, is worth taking a chance like that.*

Situation #2 LR-24 Pilot's Report

The Reporter's Action

■ *As the Captain entered the runway, I brought it to his attention that we needed 3,600 feet of runway according to the performance data for the airplane to safely take off. I questioned the wisdom of taking off on approximately 4,000 feet of runway with a disabled aircraft with passengers and emergency crews still in close proximity. The Captain turned around with about 25 [feet of] clearance to the fire truck, and, over my objection, he initiated a takeoff.*

Situation #3 B767 Captain's Report

The Reporter's Action

■ *I elected to continue the flight expecting to land [at our planned destination] with approximately 18,000 pounds in the center and approximately 8,000 pounds in each main tank. We put together a plan to divert to several locations as the situation developed. We then spent time figuring out various scenarios to determine the options for safety, weather, maintenance, passenger servicing, etc. We climbed to FL380 as soon as ATC allowed it, [achieving] slightly better range and enroute weather avoidance. As we approached [one of the diversion locations], it became clear that [we] would not reach [our original destination] safely. We declared an emergency and elected to divert to [this newly chosen location]. At that point the fuel tanks had about 16,000 pounds in each main tank and approximately 18,000 to 19,000 pounds in the center. By the time we reached [this diversion airport], the main tanks were down to approximately 5,500 pounds, [with] the center at 35,000 pounds and climbing. We were given direct [to a fix] for the ILS. Not feeling comfortable with the distance from the end of the runway, we called, "Field in sight," and headed directly toward the end of the runway.... I felt [that] the [threat] of losing one or both engines was a real possibility. I was determined to get to a 3-mile final with at least 2,000 feet to 2,500 feet of altitude in case of a dual engine failure. Once we were close enough to the field we flew through final to gain spacing, and...were in the slot by 500 feet. [We] landed without incident [with] approximately 2,500 pounds in the left and 2,000 pounds in the right tank as we crossed the threshold.*

Situation #4 CRJ-200 Captain's Report

The Reporter's Action

■ *We told the Flight Attendant we were going to shut down the engine and that it would be a normal landing. We checked the weather [at] nearby alternates to see if conditions were any better than [they were at our] destination, but they were worse. We declared an emergency, got vectors to run the checklists, made the announcement to the passengers, and landed with no further problems.... The flight crew did exactly as we were trained, and it resulted in a successful conclusion. At no time were we in any doubt about what we were doing and what the results would be.*

ASRS Alerts Issued in August 2016	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	5
ATC Equipment or Procedure	1
Other	1
TOTAL	**7**

441

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Military/Other	313
Mechanics	217
Dispatchers	168
TOTAL	**8,469**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 447 April 2017

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The following reports chronicle situations where pilots, once their decisions were made, operated their aircraft into a critical phase of flight. Choices are not always clear-cut, decisions are always second-guessed, and no number of regulations or checklists can address every decision that a pilot may be required to make. Our hope is that thoughtful discussion of these incidents might benefit the judgment that a pilot exercises while making decisions that may or may not be dictated by regulation, rule, or checklist.

The First Half of the Story

Situation #1 Beech 1900 Captain's Report

■ *Early during the takeoff roll, the pilot noted a right hand LOW FUEL PRESS annunciator and associated Master Warning.… All [other] aircraft instruments and indications remained normal.*

What Would You Have Done?

Situation #2 Air Carrier Flight Crew Report

■ *The marine fog bank had just come in. As we were intercepting the course for the RNAV Y RWY 27 approach, several planes ahead of us all went around. Tower gave us a short delay vector off the course and re-cleared us on the LOC RWY 27 approach. We did a very quick and dirty brief, noting…managed/selected [speeds] and [a potential] missed approach. I loaded the FMC while the Captain flew. I felt we were being rushed with the last minute approach change, and…it was only my third flight [in the last month]. I was slower than normal and a bit rusty as well. I didn't notice that the Derived Decision Altitude (DDA) I set was above the 500 feet AGL call. As we neared the minimums, I was looking to make the 500 feet call and completely missed the 100 feet above "Approaching Minimums" call and subsequently was late with the "Minimums" call also. The Captain called "Minimums" for me followed by his "Going Around" call. He pushed the thrust levers up to the go around detent, called "Flaps 3," and began to pitch up. I was still a second or two behind him thinking about the minimums call I just missed and didn't immediately retract the flaps. Before I could set the flaps to three, the Captain said that the runway was in sight.*

What Would You Have Done?

Situation #3 ERJ170/175 Captain's Report

■ *We departed with good weather forecast for Salt Lake City with no alternate needed. We were planned with 600 pounds of taxi fuel and 1,471 pounds of contingency fuel. The flight was uneventful until we began the descent to SLC. We were being vectored north around the airport to get around a storm that was over the airport. As we broke out north of the airport, I looked down and saw it raining on the east side with more storms east of the airport. We were on downwind vectors for [runway] 16L and had just been cleared for the approach when ATC said that aircraft were reporting a loss of 20 knots indicated airspeed (KIAS) on final and were going around. I told the FO to tell them we will be discontinuing the approach and would like to hold for a bit. We were still doing alright on fuel then and had 3,800 pounds on board. I figured we had 10 to 15 minutes before we had to do an approach to SLC or divert.… I was focused on whether or not we could hold long enough to get into SLC. ATC said that the storm was passing at SLC, and the winds were 16 knots and steady with no Low Level Windshear alerts. They asked if we would like to do an approach. We decided that we would try a single approach, and if we went missed, [then we would] go to ZZZ.*

We setup for the approach, intercepted final, and started configuring flaps. ATC advised heavy precipitation between us and the runway.

We were on the glideslope at 190 KIAS with flaps 2 passing through 7,500 feet MSL when it seems we might have encountered a microburst.… Within 5 seconds our indicated airspeed rapidly increased to 234 KIAS.

What Would You Have Done?

Situation #4 B737 First Officer's Report

■ *While on approach, we started out a little high due to thunderstorms that were on our arrival. The deviation was going to get us on the ground with about 6,400 pounds of fuel. Just north of the airport, we were turned onto a downwind and cleared to 4,000 feet MSL, and after that to 3,000 feet. Once we got close to leveling off at 3,000 feet, we were given a base turn…and cleared down to 2,600 feet. At that time we reported the airport in sight, and I noticed that we were still around 240 KIAS. I queried the Captain if he still wanted to go that fast. He said he had not realized we were still going that fast and started slowing. He dropped the gear and started slowing while also following the glide slope. I made the 1,000 foot call, but we both realized we only had flaps 15 selected up until that point. We missed that gate, but it looked like the aircraft was slowing enough to make the 500 foot gate. As we tried to get the aircraft slowed, I think we may have had only flaps 25 at the 500 foot gate.*

What Would You Have Done?

The Rest of the Story...

Situation #1 Beech 1900 Captain's Report

The Reporter's Action

■ *The pilot rejected the takeoff, as briefed, for a Master Warning prior to V1 speed. The pilot assumed a false annunciator warning because the LOW FUEL PRESS annunciator extinguished after power was reduced…and all other remaining instruments and annunciators were indicating normal. The pilot decided to attempt a normal takeoff after taxiing back to [the] runway and receiving takeoff clearance. All operations during the second takeoff were entirely normal and routine, with no abnormal annunciations or events. The flight continued through termination under normal operating circumstances.*

Situation #2 Air Carrier Flight Crew Report

The First Officer's Action

■ *We had hit a hole in the clouds, and the runway was there. We were still configured and in position to make a safe landing.*

The Captain's Action

■ *A second or two after bringing up the power, we were in the clear with the runway in sight. Since the flaps and gear had not been moved yet, I chose to pitch over gently and continued visually to land in the touchdown zone with a normal rate of descent and normal landing.*

Situation #3 ERJ170/175 Captain's Report

The Reporter's Action

■ *I would have normally broken off the approach immediately, but we were high enough off the ground that I could get stable by 1,000 feet AGL, and I also expected the [air]speed increase to immediately subside. We were both caught completely off guard when the airspeed didn't go back to normal, but actually kept increasing. At that point, I told ATC that we were going missed and going to ZZZ.… Even though there was a flap overspeed, I elected to retract the flaps due to our fuel status and not knowing if there would be a delay getting into ZZZ with other aircraft being diverted there. I felt it would be less risky to retract the flaps than to continue flying with the flaps at 2 and burn extra fuel. We landed at ZZZ uneventfully, and I left the flaps in the landing configuration until Maintenance could look at them.*

Situation #4 B737 First Officer's Report

The Reporter's Action

■ *I should have made the go-around call per Standard Operating Procedure (SOP). However, neither of us announced the go-around, and we continued to land.… Luckily, we landed uneventfully. As we taxied clear of the runway, we both agreed that we should have gone around and, after the fact, realized our non-compliance. I realized that I should have used my training and my assertiveness to announce the go-around per SOP. I still regret not speaking up as I should have.*

ASRS Alerts Issued in February 2017	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	6
Hazard to Flight	1
TOTAL	**7**

447

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

http://asrs.arc.nasa.gov

February 2017 Report Intake	
Air Carrier/Air Taxi Pilots	4,128
General Aviation Pilots	1,104
Controllers	545
Military/Other	307
Flight Attendants	296
Mechanics	182
Dispatchers	169
TOTAL	**6,731**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 452 September 2017

What Would You Have Done?

This month, *CALLBACK* again offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story," you will find report excerpts describing an event up to a point where a decision must be made or some direction must be given. You may then exercise your own judgment to make a decision or determine a possible course of action that would best resolve the situation.

The selected ASRS reports may not give all the information you want, and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to refine your aviation decision-making skills. In "The Rest of the Story…" you will find the actions that were taken by reporters in response to each situation. Bear in mind that their decisions may not necessarily represent the best course of action. Our intent is to stimulate thought, training, and discussion related to the type of incidents that were reported.

The First Half of the Story

What's the Flap? B737 First Officer's Report

■ *As the Pilot Flying while maneuvering in the busy terminal area, I didn't notice that the flap indicator did not match the [flap] handle (2 indicated, 30 selected) until the Captain identified it with the…Before Landing Checklist. We checked the Leading Edge Device [LED] indicator on the overhead panel; the LED's [indicated] FULL EXTEND. We discussed how the aircraft felt as it was being hand flown. The feel was normal.… The airspeed indicator was normal. The aircraft flew normally in all aspects except for the flap indication. All this occurred approaching the final approach fix.*

What Would You Have Done?

Takeoff Face-Off C182 Pilot's Report

■ *[The] airport (with a single runway) was undergoing major construction and had no parallel taxiway.… The only exit from the runway was a single narrow taxiway at the [approach] end of Runway 02 leading between some hangars to and from the FBO. [There was] no operating Control Tower, only UNICOM. Before departure I asked… the FBO what the active runway was, and the reply was, "People are taking off on Runway 02 and landing on Runway 20 to avoid a back taxi on a long runway." Taxiing out to Runway 02 for departure I encountered another… single engine airplane near the runway end taxiing in on a narrow taxiway…, so we talked ourselves past each other on UNICOM. I had apparently not heard the radio call…of a small jet landing on Runway 20, so I started my takeoff roll on Runway 02.… The aircraft that had [just] landed…was at taxi speed. During my takeoff roll, I only saw that aircraft when I was near rotation speed.*

What Would You Have Done?

The Weak Side B767 Captain's Report

■ *While on climb out, [we] noticed the aircraft was having difficulty climbing through 30,000 feet. We checked the engine instruments and noticed that the right engine fuel flow was indicating 700 pounds per hour. We checked the other engine indications and noticed that they were significantly below the left engine indications.*

What Would You Have Done?

Keep the M in MDA CRJ Captain's Report

■ *We were flying the localizer approach to [Runway] 24L. As we started down to the MDA, we broke out and I started looking for the airport. I was making the callouts to MDA and thought the First Officer was stopping the descent at the MDA. I looked out and back;… he was still descending.…*

What Would You Have Done?

An Approach to Remember B737 Captain's Report

■ *The First Officer (FO) was flying his first arrival to Corpus Christi, and I believe the last time I was there was more than a decade ago, so needless to say, we were not familiar with the Corpus Christi environment. We had been kept high on the arrival by ATC and were hurrying to*

descend to be stabilized for the approach. We realized that we would be too high for the approach.

What Would You Have Done?

The Rest of the Story...

What's the Flap? B737 First Officer's Report

The Reporter's Action

■ *The Captain elected to continue to land. We used flaps 15 Vref [speed for the approach] and added 10 knots. Landing was uneventful. The flap indicator moved to match the [flap] handle shortly after clearing the runway during taxi. We notified maintenance on gate arrival.*

Takeoff Face-Off C182 Pilot's Report

The Reporter's Action

■ *I thought the best option was to immediately lift off with a slight turn to the right to laterally clear the runway in any case, and that worked. I missed him vertically by 50 feet and laterally by more than 150 feet. Was that the best split-second decision? I thought so - I am an [experienced] pilot. In my opinion, the airport management had made some bad decisions concerning their improvement construction (reconstructing the parallel taxiway), and the airport was dangerous considering their heavy corporate jet traffic. I had not heard the small jet on UNICOM - possibly due to my conversation on UNICOM with the…plane taxiing in (opposite direction) just prior to takeoff. The wind was… light, and Runway 20 was apparently chosen by the jet traffic to, likewise, avoid a back taxi since the only runway exit was at the [departure] end of Runway 20.*

The Weak Side B767 Captain's Report

The Reporter's Action

■ *I [requested] to level off at FL350, then to descend to FL320. I was the pilot monitoring. I did not [request priority handling] at this time because we received no EICAS messages or alerts telling us of this situation.*

After rechecking the engine instruments and conferring with the pilot flying, I made the decision to shut down the engine inflight via the QRH Engine Failure/Shutdown Checklist.… I also made the decision that we would attempt to restart the engine because no limitations or engine parameters or engine vibrations were present or were exceeded. At this time we were about 20 minutes into the flight.… The inflight shutdown checklist was completed, and the engine inflight start checklist was completed. The engine started and accelerated normally,…and all parameters [remained within] limitations.… I contacted Dispatch and Maintenance Control…. After speaking with them and informing them of our situation and what transpired, I made the decision to continue to destination.

Keep the M in MDA CRJ Captain's Report

The Reporter's Action

■ *[I] told him to stop the descent. We stopped 150 feet below the MDA, continued the approach, and landed. Looking back at the approach, I should have called for a missed approach and received vectors for another approach. The only reason for continuing was…poor judgment or just a bad decision at the time.*

An Approach to Remember

B737 Captain's Report

The Reporter's Action

■ *[We] requested a 360 degree turn for our descent from the Tower. They approved us to maneuver either left or right as requested, and we initiated a go-around and a 360 degree left turn in VMC conditions. We initiated the go-around above 1,000 feet but descended slightly during the first part of the turn. I directed the FO to climb to 1,000 feet, which he slowly did. I had referenced the approach plate and noticed that the obstacles on the plate in our quadrant were at 487 feet and our climb ensured clearance from them. During the 360 [degree] maneuver, the FO lost sight of the airport, but I had it in sight and talked him through the turn back to the landing runway.*

The FO completed the maneuver, but we were, again, not in a position to make a safe landing, as we were not well aligned with the landing runway.… We initiated another go-around, again getting approval to stay with Tower, but we maneuvered in a right hand pattern so the FO could see the runway in the turn. I directed a climb to 1,500 feet for the 579 foot towers west of the field. The FO…had lost sight of the field and wasn't sure what maneuver we were doing while on downwind.… I had not adequately communicated my intentions for the pattern we were flying. We were maneuvering visually, so I took control of the aircraft and directed the FO to re-sequence the FMC…and extend the centerline. I completed the base and final turns and landed uneventfully on Runway 18.

ASRS Alerts Issued in July 2017	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	1
ATC Equipment or Procedure	1
TOTAL	**2**

452

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189 Moffett Field, CA 94035-0189

http://asrs.arc.nasa.gov

July 2017 Report Intake	
Air Carrier/Air Taxi Pilots	5,224
General Aviation Pilots	1,261
Controllers	622
Flight Attendants	451
Military/Other	345
Mechanics	204
Dispatchers	179
TOTAL	**8,286**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 464 September 2018

What Would You Have Done?

This month, *CALLBACK* again offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story," you will find report excerpts describing an event up to a point where a specific decision must be made, an immediate action must be taken, or a non-normal situation must be actively managed. You may then exercise your own judgment to make a decision, determine a possible course of action, or devise a plan that might best resolve the situation to a successful conclusion.

The selected ASRS reports may not provide all the information you want, and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to refine your aviation judgment and decision-making skills. In "The Rest of the Story…" you will find the actions that were taken by reporters in response to each situation. Bear in mind that their decisions may not necessarily represent the best course of action, and there may not be a "right" answer. Our intent is to stimulate thought, training, and discussion related to the type of incidents that were reported.

The First Half of the Story

Close and Closer Air Carrier Captain's Report

■ *During the takeoff roll into darkness, an aircraft taxied onto our runway from Taxiway Delta, just past midfield. I noticed it after making the 100 knot callout and about 200 yards away from us, and called it out to the flying pilot.*

What Would You Have Done?

Twin Throttle Technique

Duchess Instructor's Report

■ *My student and I were practicing a simulated single engine approach.… We crossed the IAF at 2,000 feet, and then I reduced the left throttle to start the simulation. My student started to practice the emergency procedure: maintain directional control and altitude, full mixture, full props, full power (right throttle), flaps up, gear up, auxiliary pumps on, identify and verify "dead foot dead engine." He identified the dead engine [as] the left one, so we [set] zero thrust and continued the maneuver. At this time everything was all right. Then we crossed the FAF. My student tried to decrease the manifold pressure of the good engine (right one)… to descend.… Then I realized that the manifold pressure in the right [engine] did not decrease. I took the controls and I canceled the maneuver, putting back the left prop and throttle. When I tried to decrease both throttles, I saw that manifold pressure of the right engine did not decrease.*

What Would You Have Done?

Trust but Verify Air Carrier Captain's Report

■ *We were on a left downwind south of the field at 9,000 feet on a 090 degree heading for vectors for the ILS DME 1 Runway 28 [at Guadalajara, MMGL]. The First Officer was flying. Approach instructed us to turn left to a heading of 340 degrees and descend to 8,200 feet. As the approach was built, I extended off of the 12 DME fix at 8,200 [feet]. I had progress page 2 of 2 up, and we were about 3.5 miles from the course intercept. I am not sure, but I believe we were about 14 DME from the airport.*

Approach then said, "Turn left to a heading of 310 and descend and maintain 7,100 feet, on that heading join the localizer, cleared the ILS Runway 28." This heading took us to just outside the 8 DME fix by about 1 mile. I extended off of the 8 DME [fix] at 7,100 [feet].

It was VFR, I could see the runway, and the First Officer said he had the terrain in sight to the north. We both had the Terrain Awareness and Warning System [TAWS] displays up. Because Approach gave such a precise vector and instructions, I assumed…terrain clearance would not be a factor. Both the First Officer and I had reviewed and discussed the high terrain in the MMGL area on the leg down. As we were being vectored from the south, it appeared the high terrain would be mostly to the north of our heading. The FO was in a slow descent toward 7,100 feet. Out of about approximately 7,200 feet, I heard "CAUTION, TERRAIN," and then it went immediately to a hard warning of "PULL UP."

What Would You Have Done?

An Approach to Remember

B737 Captain's Report

■ *On short final, inside the FAF, visual with the runway about 1,700-1,500 feet AGL, I commented, "We need gear down." The First Officer called, "Gear down, flaps 15." I got the gear down, armed the speed brakes, and [selected] flaps to 15. I last noticed speed decreasing around 181 [knots]. I was trying to get fully configured by 1,000 [feet] AGL. I called, "Flaps 30," and moved the handle to 30.… The First Officer saw above 175 knots…and called, "Flaps 25." I reversed the flap handle to 25.… I saw the airspeed below 175 knots, and the First Officer called, "Flaps 30." I moved the flaps to 30 and pulled out the checklist. As I ran the checklist, I saw the flaps [indicating] 25. I cycled [the flap lever from] 25 to 30 again, but the flaps locked out. We got a "TOO LOW FLAPS" warning.*

What Would You Have Done?

Close and Closer Air Carrier Captain's Report

The Reporter's Action

■ *A second later I took control, added Takeoff/Go-around [TO/GA] power, and rotated. I suspect we cleared the aircraft by about 150 feet vertically.*

More of the Story from the Controller's Report:

■ *Aircraft X was departing Runway 4. I was working Clearance Delivery/Controller in Charge [CD/CIC] and monitoring Local Controller-1 [LC-1] as required. As the Aircraft X became airborne, he asked LC-1 "Tower, did you see that?" The LC-1 asked if Aircraft Y, who was supposed to be turning at Taxiway Q, had entered the runway. At that point I looked at Aircraft Y, and the aircraft was moving slowly forward as if they were crossing the runway. However, it was night, and depth perception can be difficult at night. Aircraft X responded to LC-1 by saying yes he did enter the runway, and they had to maneuver to the left to avoid Aircraft Y. The Ground Controller [GC] then told Aircraft Y that they were supposed to be turning on Taxiway Q, but they had missed the turn. Aircraft Y replied, asking if he should turn right on Taxiway N on the other side of Runway 4. GC then explained that there was an aircraft departing and Aircraft Y replied, "Ok, um, obviously we missed it." The GC then continued taxiing Aircraft Y towards Runway 13R.*

Twin Throttle Technique

Duchess Instructor's Report

The Reporter's Action

■ *I was talking with Tower at this time.… They asked me if I wanted to take Runway 32 or circle for Runway 28. The conditions were VFR, so I canceled the approach and started to align the plane for landing on Runway 28.… My right engine was [operating] with full power due to the throttle level [being] unable to control.… I [flew] with the left… engine at idle…to maintain a safe and stable approach.*

On short final when I was sure about my landing and everything was safe with usable runway, I killed both mixtures at the same time and feathered [both] of the engines.… I landed and vacated the runway in the protected area and shutdown the plane.

Trust but Verify Air Carrier Captain's Report

The Reporter's Action

■ *The FO turned off the autopilot and began to initiate the Controlled Flight into Terrain (CFIT) recovery maneuver. As soon as he rotated, the warning stopped and he continued to climb to about 7,500 feet – the Minimum Vectoring Altitude (MVA) for this sector. At this point, there was no terrain indicated on the TAWS, and then there were no warnings. The terrain alert was momentary, and we were clear of terrain. We continued the approach at 7,500 feet and landed without event.*

There were several underlying factors that contributed to this event: 1. Approach giving very precise instructions on vectors and altitudes for the approach clearance. 2. It was a very clear night, we could see the airport, and there appeared to be no terrain between us and the airport. 3. The First officer stating he had the terrain to the north in sight.

I was aware and reviewed the MVAs for our sector. However, I allowed myself to become misled by assuming Approach had information on terrain clearance that I did not have, based on his instructions. This was a mistake. I should not have accepted a clearance. I will never again accept an altitude below MVA while on a radar vector.

An Approach to Remember

B737 Captain's Report

The Reporter's Action

■ *The FO suggested the Flap Inhibit Switch. I concurred.… I knew we had a long runway and could safely land.… We landed uneventfully and taxied in.*

ASRS Alerts Issued in July 2018	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	2
Airport Facility or Procedure	3
ATC Equipment or Procedure	1
TOTAL	**6**

464

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

https://asrs.arc.nasa.gov

July 2018 Report Intake	
Air Carrier/Air Taxi Pilots	5,571
General Aviation Pilots	1,608
Flight Attendants	582
Controllers	547
Military/Other	287
Mechanics	209
Dispatchers	166
TOTAL	**8,970**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 475 August 2019

What Would You Have Done?

This month, *CALLBACK* again offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story," you will find report excerpts describing an event up to a point where a specific decision must be made, an immediate action must be taken, or a non-normal situation must be actively managed. You may then exercise your own judgment to make a decision, determine a possible course of action, or devise a plan that might best resolve the situation to a successful conclusion.

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The First Half of the Story

Who Is in Command?

C172 Pilot's Dilemma

■ *I was conducting a CFI single engine add-on with a local Designated Pilot Examiner (DPE). [The airport] was extremely busy and using Land and Hold Short (LAHSO) rules for Runways XX and XY. We were probably on the ground for…thirty minutes before we were cleared to taxi… and another thirty minutes before we were cleared to takeoff.*

For the final maneuver of the check ride, the examiner asked for a power-off 180 landing to Runway XX. He was directing me throughout the entire maneuver (when to turn base, what airspeed to hold, how much bank to use, when to deploy flaps, etc.). His instruction led me to a very high final approach altitude. I stated, "We need to go around. We are too high." I was scared we would break the hold short lines for Runway XY. He replied, "We are not going around. I don't want to get stuck up here for another hour."

What Would You Have Done?

Watching the Fuel Flow

B737 Captain's Report

■ *We took off with 13.0 fuel on board. During climbout at approximately FL180, we received a fuel imbalance yellow [indication] on the Number 1 Fuel Gauge. According to the gauge, fuel was burning out of Number 1 Tank at a high rate. It seemed double the rate as usual. Fuel flows were the same on both engines. Fuel burned matched and were equal on both engines. Total fuel remaining equaled the planned fuel remaining. We even had a flight attendant check the wings for a possible fuel leak. We chose to run the IMBAL QRH [checklist].*

With the Crossfeed [Valve] open and Number 1 Pumps off, we were able to slow the fuel burn out of the Number 1 Tank, but were not able to stop it. We called Maintenance Control over the radio and were advised to follow the QRH. At that point we had approximately 5.3 in the Number 2 Tank and 2.2 in the Number 1 Tank.

What Would You Have Done?

Elephants in the Cockpit

CRJ-700 First Officer's Report

■ *Flying into ZZZ, we were told there were windshear and windshear conditions reported. The Captain was the Pilot Flying (PF), and I was the Pilot Monitoring (PM). Upon being told about the conditions, I put the continuous ignition on and briefed the Captain that if we get a WINDSHEAR warning, we would go around and fly to the published missed approach point. Once cleared for the visual, the aircraft was stable at 1,000 feet, where I made the 1,000 foot stable callout. Around 500 feet the WINDSHEAR aural alarm went off with the warnings displayed on the PFD. I said, "Are you not going to go around?" the Captain said, "No, that's a caution," and continued…*

What Would You Have Done?

Close Encounters

B737-700 Captain's Report

■ *Between 10 feet and 50 feet AGL during takeoff rotation, two Canadian geese flew across our nose with about 120 degrees*

right aspect angle. I saw the birds and attempted a very slight upward rotation to avoid them; however, impact occurred shortly thereafter into the Number 1 Engine. I elected to leave the landing gear down and the takeoff flaps set, as I did not know if the birds hit the nose or nose gear. The impact felt very hard, like it was to the lower front of the aircraft. I continued the takeoff climb to 1,000 feet AGL, and then started a right turn out and climb to 2,000 feet. At impact there was a very loud bang and instantaneous heavy vibration in the airframe.

Both the First Officer and I noticed a smell of burning bird in the cockpit. I reduced the power setting on the Number 1 Engine with no noticeable reduction in the vibration. I called for the Engine Fire or Engine Severe Damage or Separation checklist and noticed high vibration on the Number 1 Engine, approximately 3.3.

What Would You Have Done?

The Rest of the Story...

Who Is in Command?

C172 Pilot's Dilemma

The Reporter's Action

■ *Trusting in his judgment as a DPE and giving in to the politics of student pilot vs. DPE, I continued to land.... As I thought, we landed very far down the runway...but stopped completely before Runway XY. Once in contact with Ground, they issued me a phone number for a possible pilot deviation. I and the DPE spoke to Tower on the phone. I was put in a very difficult situation between trusting my inner judgment or trusting the advice of a seasoned DPE, who denied my request to be conservative/safe and simply go around. This experience has taught me that a pilot can always go around, and I am truly sorry for not exercising that right.... I let the politics of "the DPE is always right" cloud my inner judgment and was scared to act against him. I will use this experience to teach the importance of a go-around to future pilots, and to always lean on the safe side of flight.*

Watching the Fuel Flow

B737 Captain's Report

The Reporter's Action

■ *We decided the prudent action was to [advise ATC] and divert to [a nearby alternate]. We landed with 1.9 (number 1) and 5.1 (number 2) showing on the fuel gauges. We landed with no problems and taxied to the gate. FMC fuel burn calculations had us landing with the correct fuel at [destination]. We just could not stop the fuel burning from the Number 1 Tank.*

Elephants in the Cockpit

CRJ-700 First Officer's Report

The Reporter's Action

■ *[The Captain] continued to...land. Once on the ground,...I pulled the Captain aside and asked him to explain why he chose to continue to land when I thought...the indications that the plane was giving us were a warning, in which case we needed to execute a go-around procedure. He explained his reasoning...why he thought it was a caution.... I expressed why I thought it was incorrect, and the conversation ended.... I [later] researched that what I found...was correct,...and we should have gone around. I could have been more assertive to make the Captain go around.*

Close Encounters

B737-700 Captain's Report

The Reporter's Action

■ *I pulled the thrust down to idle on the Number 1 Engine and noticed little to no vibration thereafter. As the FO was reading the checklist, I made the decision to leave the engine running at idle and to transition to the Single Engine Landing checklist. I informed the flight attendants of the situation, and that we were returning to land. I did not brief the passengers, as we were very busy. I started the APU and set up for the ILS.*

Tower was concerned about our flight path. I directed the FO to reply that we were turning right base to final and then prepared to land. On final we ran the...landing checklist and were losing sight of the runway due to heavy rain. On short final we saw the runway with good visibility to land. We landed and taxied clear, at which time I briefed the passengers on what had happened. We taxied to the gate without incident and shut down.

Things happened very, very fast and I rushed the QRH checklist. We missed one item: to select FLAP INHIBIT, which gave us a TOO LOW FLAPS warning on final approach. Due to our heavy weight and flaps 15 configuration, it was very hard to slow down. Due to the rain, I was thinking we might have to go around, but when we broke out, we were on glidepath and about Vref plus 20 knots, but slowing as we passed over the overrun. Landing thereafter was uneventful.

ASRS Alerts Issued in June 2019	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	6
Airport Facility or Procedure	8
ATC Equipment or Procedure	11
TOTAL	**25**

475

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

http://asrs.arc.nasa.gov

June 2019 Report Intake	
Air Carrier/Air Taxi Pilots	5,539
General Aviation Pilots	1,334
Flight Attendants	934
Controllers	482
Military/Other	394
Mechanics	261
Dispatchers	159
TOTAL	**9,103**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 481 February 2020

What Would You Have Done?

This month, *CALLBACK* again offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story," you will find report excerpts describing an event up to a point where a specific decision must be made, an immediate action must be taken, or a non-normal situation must be actively managed. You may then exercise your own judgment to make a decision, determine a possible course of action, or devise a plan that might best resolve the situation to a successful conclusion.

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The First Half of the Story

Deer in the Headlights

PA23 Apache Commercial Pilot's Report

■ *I was cross-country.... While...performing my flare to land, but prior to the mains touching down, three deer ran across the runway from right to left and directly under my plane.*

What Would You Have Done?

High Without Oxygen

Air Carrier First Officer's Report

■ *I was the Pilot Monitoring (PM) when we…departed Hawaii...for the flight back to the mainland. After leveling at cruise and checking in with San Francisco Radio (and making our first position report), I asked the Captain if we could set up a bathroom break. During that process the Captain's mask became detached from the oxygen system, and he was forced to turn off the crew oxygen system supply due to uncontrolled flow.*

What Would You Have Done?

Total Electrical Failure

PA32 Cherokee Private Pilot's Report

■ *While flying a filed IFR flight plan [in IMC], I experienced total electrical failure, resulting in [minimal] instruments and no radios operating.*

What Would You Have Done?

Night Light Pollution

B777 Captain's Report

■ *During a [night] rolling takeoff [in VMC], the lights on Runway XXR failed. As we were transferring aircraft control from Captain to First Officer, a radio call from the previous takeoff informed Tower that the runway lights went out. Tower subsequently gave us a "Cancel takeoff if you'd like" instruction.*

What Would You Have Done?

Windshear Ills

CRJ900 Captain's Report

■ *We encountered windshear inside the final approach fix.... Upon receiving the windshear warning, I advanced [the throttles to] full power and followed the Flight Director escape guidance. The First Officer/ Pilot Monitoring (FO/ PM) advised Tower that we were going missed due to windshear. Once clear of the windshear, we cleaned up the aircraft and asked for delay vectors to remain in the area, as [we thought] the weather may have been clearing quicker, and we had sufficient fuel to hold. In the moments following, we received a call from the Flight Attendant (FA) and were told that she felt ill and…that many passengers were feeling sick due to the turbulence. During this call, another aircraft had gone missed due to the same windshear.*

What Would You Have Done?

The Rest of the Story...

Deer in the Headlights

PA23 Apache Commercial Pilot's Report

The Reporter's Action

■ *I immediately and simultaneously added power and pulled the nose up to go around, but was not able to completely clear the animals. I heard and felt a significant double impact under the plane while initiating the go-around. Immediately following the loud double impact, I instinctively looked at the mirror on my right engine and saw the nose gear dangling back and forth freely. At that moment, I opted to abort the go-around. I retarded the throttles to idle and landed roughly 1,000 feet down the runway. As expected, the nose gear completely collapsed.*

High Without Oxygen

Air Carrier First Officer's Report

The Reporter's Action

■ *In accordance with Extended Operations (ETOPS) requirements, we initiated a turn-around back to Hawaii. During that process we had very difficult communication with San Francisco Radio and very little communication with Honolulu on VHF. We were unable to clearly ascertain our altitude clearance, so after discussing it, we elected to vertically offset. When we confirmed the clearance, we returned to our original altitude and returned to Hawaii uneventfully.*

Total Electrical Failure

PA32 Cherokee Private Pilot's Report

The Reporter's Action

■ *Using my cell phone, I called Flight Service and asked them to relay to Approach that I was climbing to VFR conditions and reversing course. It was relayed to Approach. I…checked the fuses, found none popped, and continued north at about 7,500 feet. I saw an opportunity to descend to clear skies and did so. When VMC and around 2,000 feet, I was able to contact a family member and asked that person to notify Tower of my proposed landing, which was done. Tower gave me a green light as I prepped for landing, but when close to touchdown, they saw that my gear was up. They switched to a red light that I didn't see, but my emergency gear extension worked, so my gear dropped just in time. Tower called me and told me of the late deployment of my landing gear and said to call the Supervisor at Approach, which I did immediately [after concluding the flight]. The Supervisor told me that they did get the call from Flight Service and saw the climb, turn, and descent, but that I should have landed at the closest airport. I said I was in the clouds or above heavy broken [clouds]. I couldn't see the ground and thought it prudent to return to a familiar airport. The Supervisor told me that, during my descent, I was in Class B, and since they couldn't read my altitude, I could have caused approach problems for the big guys, but that they were glad I got down safely. I am still awaiting the avionics shop to diagnose the problem.*

Night Light Pollution

B777 Captain's Report

The Reporter's Action

■ *Based upon how clearly we could see, various radio chatter, aircraft position, power (takeoff power set), and intercockpit communication, I felt the safest course of action was to continue. The fact that the lights had failed on the runway was basically the last thing we registered during our transitional duties and various radio chatter from Airport Operations, Tower, and other aircraft. Albeit nighttime, our ability to discern the centerline and runway edges remained clear. Visibility was 10 miles plus.*

Windshear Ills

CRJ900 Captain's Report

The Reporter's Action

■ *I made the decision to divert to our filed alternate due to the safety and consideration of the passengers and crew onboard. We would not put them through the same approach and, more than likely, receive the same result. Dispatch, ATC, Flight Attendants, and passengers were informed of the decision to divert. We sent a message to Dispatch asking to have medics standing by as a precaution for the passengers who had felt ill. This request was also forwarded…to ATC. No emergency was declared. We landed at the alternate without incident, and medical personnel met the aircraft at the jet bridge, walked down the aisle, and ensured that each passenger was well. All were in good health and happy to disembark.*

We had been delayed two and a half hours on the ground out of [our departure field] and rerouted/refiled at 8,000 feet.… I had asked for maximum fuel onboard in anticipation of weather and ground delays.… All these elements had been taken into consideration and added to our plan…. [We had] reviewed windshear escape maneuvers, go-around procedures, crosswind limitations, and diversion/hold procedures. All had been briefed.

ASRS Alerts Issued in December 2019	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	2
Airport Facility or Procedure	3
ATC Equipment or Procedure	3
Company Policy	1
TOTAL	**9**

481

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

https://asrs.arc.nasa.gov

December 2019 Report Intake	
Air Carrier/Air Taxi Pilots	5,848
General Aviation Pilots	1,160
Flight Attendants	880
Controllers	389
Military/Other	266
Mechanics	218
Dispatchers	186
TOTAL	**8,947**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 487 August 2020

What Would You Have Done?

This month, *CALLBACK* again offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story," you will find report excerpts describing an event or situation up to a point where a specific decision must be made, an immediate action must be taken, or a non-normal condition must be actively managed. You may then exercise your own judgment to make a decision, determine a possible course of action, or devise a plan that might best resolve the situation to a successful conclusion.

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The First Half of the Story

Insight on 'in Sight'

General Aviation Pilot's Report

■ *The objective for this particular flight was recurrent formation training for me with the assistance of the pilot of a second aircraft…based at another nearby airport…. We agreed that we would rendezvous in a particular location, that he would fly lead, and I would join off his wing there. We further agreed on a time, altitude, frequency, and callsigns. As I approached the practice area, I observed at my 12 o'clock position, at approximately 3,500 feet MSL, an [aircraft] heading in the same direction…to the center of the practice area. On…frequency, I then made my first call to check in and to ask the flight lead if he was in position. He responded that he was approaching the practice area. I told him I thought I had him in sight. He then asked me my position, and I said I was at his 6 o'clock, several miles in trail. I told him he could maintain his heading, and I would close from the rear.*

What Would You Have Done?

Windshear Rides Again

B737-800 Captain's Report

■ *The weather was VFR with rain directly over the field, and the winds were favoring Runway 25…. I planned for…and briefed the Runway 25 RNAV approach before the descent started…. I leveled at 2,500 feet, …was configured with flaps 5, and speed was set. I was given a heading…to intercept the final approach course about 6 miles from the Final Approach Fix and cleared for the RNAV [Runway] 25. As the autopilot was intercepting the inbound [course],…we experienced a 15-knot loss of indicated airspeed and moderate turbulence.*

What Would You Have Done?

We'll Always Have Paperwork

Air Carrier Captain's Report

■ *[I] arrived at the aircraft and completed preflight items for a maintenance ferry flight…for the purpose of parking the aircraft…due to the COVID-19 economic downturn. During pre-flight, I determined that there was not a current maintenance release form in the aircraft logbook. I called Maintenance on the radio and requested a new maintenance release. Maintenance said that we did not need a maintenance release form because we were flying a maintenance ferry flight and we only needed a maintenance ferry document, which should be in the aircraft logbook. There was no maintenance ferry document in the aircraft logbook or in the flight plan paperwork.*

What Would You Have Done?

Abort Considerations

Air Carrier First Officer's Report

■ *I was Pilot Flying and set thrust for takeoff, pressed the TOGA button to engage takeoff thrust, and noticed the right thrust [lever] did not fully advance. I called, "Check thrust." The Captain noticed that the Number 2 Engine would not achieve takeoff thrust.*

What Would You Have Done?

The Rest of the Story...

Insight on 'in Sight'

The Reporter's Action

■ *As I approached the [aircraft] in front of me, I suggested over the air-to-air frequency that my training partner make a shallow turn to help me close, and he acknowledged. A moment later, the [aircraft] in front of me began a gentle turn to the left.*

Once I was established in the turn and began to close, my partner asked for my current position. I indicated that I was moving from trail to his right wing.... I moved into a loose fingertip off the lead aircraft. About this time my partner asked again for my position and said he could not see me. I replied that I was off his right wing and thought for a moment that, possibly, I was partly blocked by the window/door framing.... I moved slightly forward to a more visible bearing line, and then radioed to ask if he had a clear visual. He responded that he still did not, and at that point, it suddenly occurred to me that I might be flying formation off the wrong aircraft. Over the air-to-air frequency I read the N-Number of the [aircraft] in view and asked if that was my training partner's aircraft.... He replied that he was flying a different aircraft, and the mistaken identity suddenly was clear to us both.

At that point, I broke off formation with...[that aircraft], and...the rest of the flight proceeded normally.

Contributing factors to this confusion included:

The remarkable coincidence that the mistaken [aircraft] was in exactly the right place at the right time and the right altitude, and that it subsequently began a turn exactly when I requested my flight lead to do so.

My failure to ask my training partner to utilize TCAS/ADS-B to firmly establish me on his PFD prior to my moving in on what I thought was the flight lead.

My electing to join from a trail position, which denied my flight lead a chance at a visual until later in the process.

My expectation bias that, because of Corona, there would be few, if any, other aircraft, and that this must have been my training partner.

Windshear Rides Again

The Reporter's Action

■ *I immediately disconnected the autopilot and the autothrottles, simultaneously rolled wings level, and [advanced] the throttles. I pitched up when I was confident that the airspeed was recovered to a safe speed. I asked the FO to inform the Approach Controller that we aborted the approach. We maintained...heading and climbed up to 4,000 feet. We flew out for approximately 10 miles. After 10 minutes, we received radar vectors for a right base and a visual approach without incident.*

We'll Always Have Paperwork

The Reporter's Action

■ *I called Dispatch and requested a new maintenance release and was told all I needed was the maintenance ferry document. I told Dispatch that I did not have one anywhere on the aircraft and I needed him to send me one. The Dispatcher told me that he couldn't cut and paste the maintenance ferry document into ACARS, but that he could take a picture and send it to me on my phone. He sent me a picture of the maintenance ferry document.*

I had never seen a maintenance ferry document, and therefore, had no idea if the Dispatcher had sent me the proper documentation. Per the flight plan, we were dispatched Part 91, and having been told by both Maintenance and Dispatch that we had what we needed, we proceeded to operate the flight safely and on time....

It was only an hour after our arrival...that we were contacted by...Flight Operations and were told that we had departed without the proper maintenance release form. I sent a picture of the maintenance ferry document from Dispatch and a copy of the flight plan and told her I would file a report.

Abort Considerations

The Reporter's Action

■ *[The Captain] called, "100 knots," but I noticed he was heads down at the engine gauges, and I called, "V1." I achieved Vr, and he called for a rejected takeoff. I said, "Negative, we are past V1." He pushed the thrust levers to full thrust, and we rotated without incident. I disconnected autothrottles and was able to achieve climb thrust for the climb to cruise altitude. At cruise, the Captain called Maintenance Control to discuss the issue, and they told us that the aircraft [recently] had a similar incident.... We continued the flight without incident and debriefed the situation at cruise. We talked about the fact that we were at such a light weight and the speeds V1 and Vr came so much earlier than normal.*

ASRS Alerts Issued in June 2020	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	5
Airport Facility or Procedure	3
ATC Equipment or Procedure	4
Maintenance Procedure	1
TOTAL	**13**

487

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189
Moffett Field, CA
94035-0189

http://asrs.arc.nasa.gov

June 2020 Report Intake	
Air Carrier/Air Taxi Pilots	2,044
General Aviation Pilots	1,377
Flight Attendants	229
Controllers	177
Mechanics	141
Dispatchers	59
Military/Other	36
TOTAL	**4,063**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 494 March 2021

What Would You Have Done?

This month, *CALLBACK* again offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story," you will find report excerpts describing an event or situation up to a point where a specific decision must be made, an immediate action must be taken, or a non-normal condition must be actively managed. You may then exercise your own judgment to make a decision, determine a possible course of action, or devise a plan that might best resolve the situation.

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The First Half of the Story

In the Terminal Environment

General Aviation Pilot's Report

■ *I was flying VFR above a broken/scattered layer with tops at about 9,500 feet after having climbed above the layer. Though I get flight following on 95 percent of my flights, traffic was so light, due to the pandemic, that I chose not to speak with ATC this day. I knew I had to fly well south of my destination before I could descend in relatively clear conditions. As I was descending and turning to the northwest, I was suddenly staring directly at a commercial jet crossing my path from right to left [approximately] 3 miles directly ahead and below less than one thousand feet.*

What Would You Have Done?

A Window for Decision

B737 Captain's Report

■ *On climbout…at about 25,000 feet, the First Officer's (FO's) front window completely shattered. Our actions as a crew…*

What Would You Have Done?

Hidden in Plane Sight

Air Carrier Captain's Report

■ *The FO returned from the exterior preflight and informed me that the left fixed landing light was inoperative. We confirmed this and [deferred it per the Minimum Equipment List (MEL)]. After pushback, we accomplished the after-start flow, and the CAPT PITOT light stayed on. The circuit breaker was in, so we contacted Dispatch and Maintenance via phone to [defer] this. We were able to continue per the MEL and taxied for takeoff. On the takeoff roll, I noticed, at about 70 knots on the FO's side, that I had no airspeed indication.*

What Would You Have Done?

The Last Line of Defense

A319 First Officer's Report

■ *While on the…RNAV arrival into Newark,…ATC vectored us off the arrival to a heading of 230 [degrees] and assigned us a descent from 7,000 feet MSL to 4,000 feet MSL. The vector placed us about 5 miles behind a VFR aircraft at 3,500 feet MSL. The VFR aircraft was also heading roughly 230 [degrees]. We were overtaking the VFR aircraft with approximately 40 knots of overtake. There was a 600-foot broken cloud deck from 3,500 feet to 4,100 feet MSL, which kept us in Instrument Meteorological Conditions (IMC). ATC pointed out the VFR traffic, but we told them we were not [in] visual [conditions].*

At roughly one to two miles from the VFR traffic and leveling at 4,000 feet, our TCAS showed the traffic climbing…. Inside of a mile, estimated…on TCAS, I perceived an impending conflict based on the TCAS trend and our overtake.

What Would You Have Done?

The Rest of the Story...

In the Terminal Environment

The Reporter's Action

■ *I initiated a hard turn to the right and a shallow climb, and I noticed the jet banking to its right. I was surprised to see a jet in this location at this altitude.... I fly this route often for training, but rarely above 6,000 feet, so later after landing, I studied the [local] STARs and saw that this jet was right where it was supposed to be on the STAR. I had collected the weather soon after the traffic encounter, and it was reporting 5,500 [feet] broken, which equates to an MSL ceiling of 7,000 [feet] and is about where the jet was. I realize, now, that the jet was descending through the cloud layer that I flew around, and the jet speed was such that it must have emerged from the cloud layer during my momentary heads down to get the frequencies at my destination. The encounter was rattling, and I can imagine the pilots of the jet making a colorful comment or two about general aviators.*

There are many obvious lessons here. Talk to ATC, maintain a traffic scan, and pay closer attention to any traffic information available on the Multi-Function Display (MFD). Nevertheless, I realize, now, that I do not have a full understanding of the STARs in my area, since they are generally used by turbojet aircraft capable of 250 knots and arriving from the flight levels. In particular, I note that there are 25 STARs published for the airports under the [local] Class B Airspace. I believe it would be helpful for all general aviation pilots in this crowded airspace if there was a chart, showing all the routes, that was color coded for altitude. A chart with high glance value would be worth checking when traversing the region VFR. Better yet would be a layer on ForeFlight or other Electronic Flight Bags (EFBs) showing all STAR routes with a selectable altitude, say, between 6,000 and 7,000 feet, or between 7,000 and 9,000 feet, etc.

A Window for Decision

The Reporter's Action

■ *[We made] an immediate level off and communicated with ATC. Reading the checklist, [we] came to a point of putting on shoulder harnesses. At this point, I requested a turn [back to the departure airport]. We worked together to get the airplane turned around with a new routing. The FO worked with ATC, and I went back to the checklist for its completion. The last item on the checklist asked if the [damaged] glass was the inner or outer [pane]. In our case, it was the outer. The final line on [the outer pane] checklist reads, "Continue as normal and take off shoulder harnesses." So, this is where I recognized the error. As dire as "put on shoulder harnesses" is, this was not the time to turn around.*

We once again discussed our situation with one another with a completed checklist, and we cautiously went with the checklist, [concluding] that this [condition] is [directed] to continue to [destination]. Our fuel situation was fine, as we proceeded to destination fairly quickly. We were left separated in situations and busy unnecessarily. This is my disappointment.

Hidden in Plane Sight

The Reporter's Action

■ *I rejected the takeoff at that point. We cleared the runway, ran...brake cooling numbers, and requested taxi back to the gate. A three-minute cooling at the gate was returned via [performance calculations].*

At the gate, after writing up the discrepancy, I asked the FO to do a walk around, as we were going to terminate the aircraft and likely would not take this aircraft out. He returned immediately and informed me that the entire pitot tube was missing. I was met on the jetway by company maintenance personnel, [who had been] working on another aircraft. After discussing various possible ways the pitot tube could have been torn off, we suspected that it had happened in or out of the gate the previous night or on the remote pad where the aircraft overnighted. Shortly thereafter, the actual pitot tube was found on the ramp at the remote pad. We simply missed the pitot tube damage...and clearly missed the missing pitot tube on the originating exterior preflight.... The FO could have been distracted by the actual runway turnoff light in his face, or by attempting to tell if, in fact, a left fixed landing light was inoperative. Regardless, we missed the damage. We [applied the MEL to] the cockpit indication correctly and applied all MEL procedures properly, to my knowledge.

The Last Line of Defense

The Reporter's Action

■ *I turned off the autopilot and initiated an aggressive climb. Moments after initiating the climb, the TCAS RA aural alert sounded with an initial descend command followed immediately by a climb command. I followed the climb command with the vertical speed in the green until "clear of conflict" was heard, which happened at about 4,500 feet MSL. The Captain informed ATC that we were climbing as a result of the RA. ATC acknowledged and assigned us back down to 4,000 feet MSL. The rest of the approach and landing was uneventful.*

ASRS Alerts Issued in January 2021	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	2
Airport Facility or Procedure	6
ATC Equipment or Procedure	2
TOTAL	**10**

494

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

https://asrs.arc.nasa.gov

January 2021 Report Intake	
Air Carrier/Air Taxi Pilots	3,166
General Aviation Pilots	999
Flight Attendants	364
Military/Other	214
Mechanics	189
Controllers	187
Dispatchers	141
UAS	2
TOTAL	**5,262**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 500 September 2021

What Would You Have Done?

This month, *CALLBACK* again offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story," you will find report excerpts describing an event or situation up to a point where a specific decision must be made, an immediate action must be taken, or a non-normal condition must be actively managed. You may then exercise your own judgment to make a decision, determine a possible course of action, or devise a plan that might best resolve the situation.

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The First Half of the Story

A Calculated Question of Takeoff

Super Cub Pilot's Report

■ *Another aircraft landed at ZZZ after I had landed. That aircraft had a nose gear failure, which resulted in that aircraft flipping over. This is a very remote airstrip in the backcountry. I helped secure that aircraft, but we were not able to move that aircraft from the runway. Approximately 1,350 feet of runway was available for me to depart.*

What Would You Have Done?

Weather or Not to Turn Around

Single Engine Aircraft Private Pilot's Report

■ *ForeFlight did not show icing conditions where I encountered them.… The ZZZ1 [destination] live weather cameras looked promising, too. I should have used multiple resources instead of just ForeFlight. Years of multiple flights on this route gave me a false sense of security.… A small storm was moving in. I pushed my limits trying to arrive before the storm while taking advantage of tail winds.… I encountered MVFR conditions over the mountains…40 miles southwest of ZZZ2 at approximately 14,500 feet. I noticed light rime icing…at -20 degrees C. I climbed and notified ATC that I would return to ZZZ due to weather.… While heading back at 17,500 feet, it [now] appeared I could make it safely over the top of the weather [to ZZZ1].*

What Would You Have Done?

Grass Strip Precision

Light Sport Aircraft Pilot's Report

■ *I was attempting to land at ZZZ, an unfamiliar airport described in the chart supplements as a short grass strip that is unattended and has no services. Approaching from the north, I misidentified a small, unrelated field as the airport environment. The field was located about one half mile due north of the [intended] airport. I overflew the field, and noted that it was oriented the same as the listed runways, was about the same length, and appeared to have tire tracks and ruts at both ends consistent with a grass runway.*

The proximity of new housing subdivisions to each end of the field was peculiar but…consistent with the description of ZZZ being close to…power lines and a suburban environment. I circled overhead…several times observing the approach, and concluded the landing would definitely require full and well-executed short field techniques.

I performed a normal short field approach, which brought me within 30 to 40 feet of the roof of the nearest house to the field and within 10 feet of the fence bordering the field. A workman was attending…a truck near the end of the field, and he…ran away in a path perpendicular to my approach.

Once I began my round-out, and at a height of about 10 feet, I could see that the field was not mowed grass but was some sort of vegetation about 1 to 2 feet high.

What Would You Have Done?

The Landing Environment

Lear 35 Pilot's Report

■ *We…flew the ILS…approach and had a visual on the runway at 100 feet above minimums. Airspeed was Vref plus*

20 [knots] due to strong, gusty crosswinds. [The Captain] initiated the flare on centerline, and at 1 to 2 feet above the runway, a wind gust, of what I estimate as 35 to 40 knots, lifted the right wing, rotated the aircraft nose right, and began to push the aircraft toward the left edge of the runway. The aircraft altitude increased 10 to 15 feet.

What Would You Have Done?

On the Runway

Pilatus PC12 First Officer's Report

■ *We were scheduled to fly…out of ZZZZ to ZZZZ1…. While at cruise, my Captain noticed the rudder pedals on the pilot side did not mobilize as they should when pressed. My Captain requested for me to step on the rudder pedals to see if I could notice any anomalies with the brakes on the Pilot Monitoring side. I did not notice anything unusual about the rudder pedals. We then proceeded to set up for the approach at ZZZZ1. We did an approach and landed on the runway.… On the rollout, I noticed that we were not slowing down like we should. The plane seemed to stutter as if the brakes were engaging and then disengaging.*

What Would You Have Done?

The Rest of the Story...

A Calculated Question of Takeoff

■ *The conditions left a safe margin for my departure over the flipped aircraft. I was off the ground in about 500 feet. I departed the airstrip and returned to ZZZ1 to get additional help to move the aircraft from the runway.*

Weather or Not to Turn Around

■ *I planned to overfly ZZZ2 and look for a safe opening in the weather. I…was still feeling complacent and confident. I informed ATC of my plans to turn around [again]. This was NOT a safe or intelligent decision.… I should have acknowledged my original weather concerns and continued back home [to ZZZ]. While close to ZZZ2, clouds rapidly built up vertically. I started icing up and informed ATC of my situation and need to climb to FL185. I was at my service ceiling with few options. Despite pitot heat and MVFR, my pitot tube froze up. I lost all primary instruments, switched to secondary…gauges, and my oxygen tank malfunctioned…all… in a matter of minutes. Lack of practice on partial instrument panel failures did not help my situation. I informed ATC that I was unable to copy IFR clearances.… Maneuvering around building IMC icing conditions on [secondary] gauges at my service ceiling without oxygen, and now fighting headwinds, was very challenging. Flying the plane had to be my sole focus, and ATC understood. ATC made me a priority aircraft.… As I headed southwest, my instruments came back online, the weather improved, and I subsequently picked up an IFR clearance. I requested lower, plus cancellation of IFR. Center asked if I was still in distress. I assured ATC that everything was fine now.… A good preventative measure would have been not to fly at all that day.*

Grass Strip Precision

■ *I added power and executed a normal go-around. I flew a traffic pattern at 1,000 feet AGL attempting to further observe the field and orient myself to the sectional chart using my panel mounted VFR GPS and by visual landmarks. I concluded that I had misidentified the airport and [subsequently] landed at a nearby larger airport instead.*

When planning to arrive at such a small unfamiliar airport in a dense suburban setting, I should…consult Google maps and other aerial views…to be able to visually identify the airport. I'll definitely do this in the future.

The Landing Environment

■ *For approximately 5 to 7 seconds, an attempt was made to re-initiate landing. It became obvious that the aircraft was not in a position to land on the remaining runway, and a missed approach was performed. Upon contacting ATC, a diversion to [an alternate] was requested. While running the approach checklist, we noticed very little fuel in the left tip tank with approximately 500 pounds in the right [tip] tank. The imbalance was confirmed in control feel. An addition was made to Vref for both wind and lateral imbalance. The landing was uneventful until ramp arrival revealed fuel leaking from, and damage to, the left wingtip area.*

On the Runway

■ *The Captain…performed a go-around. After the go-around, we both agreed that we were in a position to safely try again. This time, we came in a little bit slower, and once again on the rollout, my Captain was pressing the brakes and we were not decelerating as normal. After the second go-around, we both agreed that our best option was to divert to ZZZZ2 where there was a significantly longer runway. We landed at ZZZZ2 without incident and deplaned the passengers.*

ASRS Alerts Issued in July 2021	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	1
Airport Facility or Procedure	7
ATC Equipment or Procedure	7
TOTAL	**15**

500

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

https://asrs.arc.nasa.gov

July 2021 Report Intake	
Air Carrier/Air Taxi Pilots	4,460
General Aviation Pilots	1,494
Flight Attendants	1,048
Controllers	445
Military/Other	307
Mechanics	213
Dispatchers	169
TOTAL	**8,136**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 506 March 2022

What Would You Have Done?

This month, *CALLBACK* again offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story," you will find report excerpts describing an event or situation up to a point where a specific decision must be made, an immediate action must be taken, or a non-normal condition must be actively managed. You may then exercise your own judgment to make a decision, determine a possible course of action, or devise a plan that might best resolve the situation.

The selected ASRS reports may not provide all the information you want, and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to refine your aviation judgment and decision-making skills. In "The Rest of the Story…" you will find the actions that were taken by reporters in response to each situation. Bear in mind that their decisions may not necessarily represent the best course of action, and there may not be a "right" answer. Our intent is to stimulate thought, training, and discussion related to the type of incidents that were reported.

The First Half of the Story

An Insidious Incapacitation

Cessna 206 Pilot's Report

■ *While conducting an aerial survey operating a Cessna 206, I noticed that the camera crew person did not respond appropriately to my questioning and had what appeared to be a sense of confusion during the flight.… After takeoff, I leveled the airplane at 16,100 feet to start the aerial survey. I checked to see how much oxygen was flowing through my supplemental oxygen cannula and confirmed it to be set at 17,000 feet. I noticed my camera crew person, who was sitting in the right seat next to me, increasing his oxygen level intake. I asked him if he was OK, and he responded, "I don't know." I then asked him if we are doing lidar work. He replied, "No, why would you ask me that?" Shortly thereafter, I started to feel uneasy and woozy. I felt my heart rate increase. I was slow to talk, and making decisions was a bit more difficult.*

What Would You Have Done?

Anatomy of a Late Go-Around

SF50 Vision Jet Pilot's Report

■ *I was carrying too much speed on final and proceeded to float for what I felt like was too long. My training beat into my head, "When in doubt go around," so…*

What Would You Have Done?

An Encounter Too Close

Flight Instructor's Report

■ *I was with an instrument student. We were taking off and were departing to the north. As we began our takeoff roll, I saw that there were skydivers in the area. I was not concerned, as they do not cross the runway below 1,000 feet. I mentioned to my student that we had to keep an eye on the skydivers. My student had the throttle all the way in and was getting ready to rotate. I noticed a skydiver getting closer to the runway at a low altitude. The skydiver was on the southeast side of the runway.*

What Would You Have Done?

Compounded Problems

BE1900 Captain's Report

■ *Operating at FL190, …the cabin altitude was indicating approximate 10,000 feet.… I felt a change in pressure inside the aircraft. When I crosschecked the cabin altitude, [rate of] climb was indicating 4,000 feet [per minute].… A minute later, the cabin altitude warning illuminated. This was followed by the aircraft memory item and checklist. I pulled the O_2 knob, …and as I pulled the mask, I placed the oxygen mask on emergency mode, but no oxygen was flowing. I placed it back on normal operation and nothing happened. I switched the microphone to the oxygen mask and advised ATC for an urgent descent to 10,000 feet. I discovered that ATC was unable to hear me at all. I looked over, and the switch for the microphone was placed in "OXYGEN MASK."… Nothing seemed to fix the problem. The cabin altitude was indicating roughly about 20,000 to 21,000 feet, from what I recall.*

What Would You Have Done?

Evaluating Credible Risk

C525 Captain's Report

■ *When checking on with Departure after a normal takeoff and climb, ATC informed us that ground personnel reported sparks exiting from our…Number 2 Engine during takeoff. We observed no abnormalities of any kind to indicate a problem (vibration, noise, engine parameter readings, power output, etc.). After a short discussion, …*

What Would You Have Done?

The Rest of the Story...

An Insidious Incapacitation

■ *I decided to increase my supplemental oxygen cannula to 22,500 feet to increase the oxygen intake. I looked over at the camera person to see how he was doing and noticed what appeared to me as a discoloration of his face. At this point, I…started a descent, turned off the cabin heat, opened the air vents, notified ATC, and activated the autopilot for the descent (in the event I passed out). Upon reaching a lower altitude and knowing that I was not going to pass out, I disengaged the autopilot and accelerated the descent to 3,500 feet and continued directly to ZZZ and landed. After speaking with the mechanics, it was learned that the flange was bent, causing the Number 2 Cylinder to leak exhaust gases into the cabin.*

Anatomy of a Late Go-Around

■ *Out of an abundance of caution (I thought), I began to execute a go-around. What I failed to realize is the eight seconds that a turbofan engine takes to spool up, so before full power was [achieved], my wheels were on the ground and I was slowing. We sped up and I saw the end of the runway coming too quickly and decided to…stop the go-around and slam on the brakes with very little runway remaining. We were nearing the end of the runway. To avoid slamming into the large runway lights, I turned onto the grass at the last minute and used the dirt to stop us completely. No damage [was done] to the airplane.… Only some new tires were needed.*

An Encounter Too Close

■ *I instructed my student to not rotate. At that point, the plane did lift off, so my student pushed the yoke forward to get back on the runway. We had too much momentum, so to prevent any incident, I took the controls and performed evasive maneuvers. We swerved over the grass to the northwest side of the runway and then climbed out safely. We were very low to the ground when I took evasive action; I would estimate below 50 feet. The skydiver landed within a few feet of the runway. The canopy was red or possibly an orange-red.*

Compounded Problems

■ *I switched again to my headset and requested, "Priority, need to descend now to 10,000 feet, pressurization problems." As soon as I talked to ATC, I started the immediate descent memory items and checklist. While descending, I took the First Officer's mask to [check] for oxygen flow, but no oxygen was flowing, I double checked the O_2 handle. I pulled both upper and lower [handles] located on the Captain's left hand side, but nothing [resolved] the O_2 [mal]function. Since I was indicating 60 miles from my departure airport, I decided to return.… In my judgment, it was unsafe to continue the flight without O_2 flow, no oxygen mask microphone, and pressurization problems. Upon reaching 10,000 feet, the cabin stabilized, and the cabin altitude indicator was no longer illuminated with a cabin altitude at about 9,000 feet. ATC gave me instructions to descend to 5,000 feet.… The cabin altitude started to jump 5,500 [FPM] up followed by a descent at 4,000 [FPM], and this continued all the way to 3,000 feet. At that moment, I was feeling uncomfortable since my ears were hurting and I knew I was not feeling 100%. At 3,000 feet, I turned off my bleed air and flew the aircraft unpressurized.… I landed the aircraft successfully without any [other] major issues.*

Evaluating Credible Risk

■ *We elected to return to ZZZ as a precaution and received vectors for the ILS.… We continued to monitor engine indications closely but at no time observed anything abnormal. ATC asked us numerous times if we required assistance or would like to request priority handling, which we declined, as there seemed to be no cause for alarm or need for priority handling. A short time later, ATC advised us that ZZZ Tower was treating us as a priority aircraft, anyway. The remainder of the approach and landing was uneventful. Emergency vehicles escorted us back to the FBO ramp but did not observe any signs of engine trouble. Shutdown was normal, and a post-flight inspection of visible engine areas revealed no abnormality. A subsequent borescope inspection by Maintenance…revealed three missing blades on the Number 2 Engine high-pressure compressor and general damage to the entire compressor due to those blades separating during engine operation. I later learned that this is a known issue for this engine.*

ASRS Alerts Issued in January 2022	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	7
Airport Facility or Procedure	7
ATC Equipment or Procedure	5
TOTAL	**19**

506

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

https://asrs.arc.nasa.gov

January 2022 Report Intake	
Air Carrier/Air Taxi Pilots	4,771
General Aviation Pilots	1,132
Flight Attendants	702
Dispatchers	245
Controllers	214
Military/Other	191
Mechanics	164
TOTAL	**7,419**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 512 September 2022

What Would You Have Done?

This month, *CALLBACK* again offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story," you will find report excerpts describing an event or situation up to a point where a specific decision must be made, an immediate action must be taken, or a non-normal condition must be actively managed. You may then exercise your own judgment to make a decision, determine a possible course of action, or devise a plan that might best resolve the situation.

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The First Half of the Story

Communication Once Again

B737-700 Pilot's Report

■ *[We were] midway down the runway on takeoff. A regional aircraft…stated, "Using the afterburners, huh?"*

What Would You Have Done?

A Dysfunctional Check Flight

CRJ700 First Officer's Report

■ *This flight was a functional check flight (FCF)…. All flight controls were disconnected and reconnected to replace a beam under the cockpit. After about 30 to 45 minutes of normal FCF tests of hydraulics and flight controls, we taxied out and completed the reverser test and engine runup. It was after sunset and dark…now. We were cleared for takeoff… with no delay due to a flight on the visual approach. We lined up slightly nose left. The Captain, PF, added full power for a standing takeoff with bleeds closed per FCF procedure. He released the brakes and used the right rudder pedal to steer right, but the aircraft went more left, so he hit the right pedal harder and we went left harder.*

What Would You Have Done?

Exit Strategy

Small, Two-Engine Transport Pilot's Report

■ *After dropping a load of skydivers, I entered the airport traffic pattern on a high crosswind…. Subsequent calls were made on downwind, base, and final. Neither I nor the other pilot onboard heard any calls from any other aircraft in the area. We are always careful to coordinate due to the glider activity at the airport as well as the VFR traffic when the weather is nice. On short final…I suddenly noticed an aircraft on the opposite end of the runway…. The aircraft was moving and heading directly toward us, though it appeared to be on or just above the runway. We were still on short final and higher. I could not alter my flightpath to the right, as skydivers were landing there. I did not want to go left, as that is where I expected the other aircraft to go.*

What Would You Have Done?

Landing Decisions

Small Aircraft Pilot's Report

■ *I was PIC and the only person onboard. On my turn from downwind to final, I noticed my airspeed was at 60 [knots], so I took action to increase my airspeed. In the course of doing this, I found that when I turned to final, I was too high. I put the aircraft into a slip to get down. When I rounded out of the slip, I was over the runway numbers and doing 79 knots.*

What Would You Have Done?

Spoiler Alert

B767 Captain's Report

■ *This trip was…the continuation of Aircraft X on…the day following our weather divert. While beginning our descent… the FO (PF) deployed the speedbrakes to approximately 50% in order to comply with the altitude restriction. When the FO stowed the speedbrakes, the aircraft abruptly rolled 35 degrees to the left. The autopilot had difficulty*

controlling the aircraft, so we disconnected and the FO flew manually. The FO quickly and accurately corrected the left-roll tendency with right ailerons, leveled the wings, and continued the arrival. Simultaneously to these events, the SPOILERS EICAS illuminated. We slowed to 250 KIAS to minimize the left-roll tendency and informed ATC. We decided to have the FO continue to fly and handle radios while I ran the non-normal checklist, coordinated with Dispatch and Maintenance, and ran the test with the Lead Flight Attendant. After finishing the SPOILERS EICAS checklist and the other coordination… it was determined that some of the spoilers on the left wing remained in the UP position and would not stow.

What Would You Have Done?

The Rest of the Story...

Communication Once Again

■ *Since we were empty with no passengers and not much fuel, we were accelerating quickly, and thus, his comment made sense. Upon rotation, the Tower asked the regional aircraft, "What was that you said?" He responded, "Looks like [Company] is using afterburners; a six-foot flame was coming out of the back of the #2 engine." Upon reaching cleanup altitude, we ran all the appropriate checklists and returned back to ZZZ. The fire trucks were called by ATC, and they performed an inspection upon taxiing clear of the runway. We were cleared to taxi to the gate.… The event was entered in the logbook, and Maintenance, Dispatch, and the Chief Pilots were notified. The regional aircraft could have been more clear in his comments, and we could have aborted the takeoff at low speed.*

A Dysfunctional Check Flight

From the Captain's Report

■ *I aborted the takeoff and came to a complete stop on the runway. The speed at the time of the abort was less than 40 knots. We ran the QRH and were able to taxi…off the runway using the tiller. Before taxiing back to the ramp, we lined up on the runway again, this time only intending to test the rudder pedal nose wheel steering. Both the Captain and FO…pedals were tested.… Both sets of pedals were giving inverse steering commands. Right rudder was giving a left steering command and left rudder was giving a right steering command. The aircraft was returned to the ramp, and the discrepancy was entered into the logbook. The cause of inverse steering commands was traced back to one of the electrical components that activates nose wheel steering being installed 180 degrees out of normal position. Update FCF checklists to include more detailed preflight checks and the testing of rudder pedal steering during taxi-out.*

Exit Strategy

■ *In that decision-making moment, I saw the other aircraft begin to climb, and I decided that the best course of action was to go underneath them and continue with the landing. From third party accounts, I believe that the other aircraft did, in fact, make a radio call announcing their position in the pattern and their intent to land on [that runway]. The high amount of wind noise interacting with the headset booms may have prevented us from hearing those transmissions.… We were in contact with ATC during the jump run and the descent and did not have an issue hearing them. This is one of those airports where the runway has a significant slope, and aircraft taking off in one direction and landing in the other direction is not uncommon. That was the case on this day.*

Landing Decisions

■ *I should have gone around but, instead, made the bad decision to try to force the plane onto the runway. When I touched down before the midway point of the runway, I was still too fast and locked up the brakes. This resulted in a sideways skid into the grass on the left side of the runway. I went 30 feet into the grass. There was no damage to the airplane or injury to me. I taxied back to the hangar for inspection. Maintenance confirmed no damage. Looking back now, I should have just gone around after I was not happy with my downwind to base turn.*

Spoiler Alert

■ *I opted to request priority handling and requested the ILS with a long, 20-mile final, which ATC coordinated. We then gradually slowed and configured the aircraft, determining the aircraft controllability with each configuration change. Once final landing configuration (Flaps 30) and target speed were established, the aircraft continued the left-roll tendency but was manageable. The FO accurately noted that at target speed, the speed tape showed little margin above stick shaker activation, so we opted to add 10 knots to our target speed. I believe this was due to the spoilers still extended on the left wing. The remainder of the approach and landing was uneventful, as the FO made an excellent landing. I took the aircraft on the rollout, and we met the responding emergency personnel. They checked us over, and we taxied to the gate.*

ASRS Alerts Issued in July 2022

Subject of Alert	No. of Alerts
Aircraft or Aircraft Equipment	1
Airport Facility or Procedure	4
TOTAL	**5**

512

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

https://asrs.arc.nasa.gov

July 2022 Report Intake

Air Carrier/Air Taxi Pilots	4,728
General Aviation Pilots	1,290
Flight Attendants	949
Controllers	391
Military/Other	230
Mechanics	209
Dispatchers	161
TOTAL	**7,958**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 519 April 2023

What Would You Have Done?

This month, *CALLBACK* again offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story," you will find report excerpts describing an event or situation up to a point where a specific decision must be made, an immediate action must be taken, or a non-normal condition must be actively managed. You may then exercise your own judgment to make a decision, determine a possible course of action, or devise a plan that might best resolve the situation.

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The First Half of the Story

Dominoes in the Pattern

Small Cessna Flight Instructor's Report

■ *My student and I were in the [Runway 5] pattern.… I was instructing my student on patterns and proper procedures. I had heard on the radio two aircraft in the area: Aircraft Y calling a 10-mile final for Runway 5, and I heard Aircraft Z make a takeoff call for Runway 14. The winds at the time were favoring Runway 5. My student and I had already made a previous takeoff and landing on Runway 5 for pattern practice. After I heard the plane taking off Runway 14, I actively…searched for him and could not spot him, so I started to divert my attention to the other aircraft landing on Runway 5. My student started to turn base when Aircraft Y called a 5-mile final behind us. We continued down to the runway and made a safe landing. We came to a full stop on the runway to clean up the airplane and make a very short debrief because Aircraft Y, landing behind us, was on a 1-mile final as he made a radio call. We made a radio call stating that we were departing Runway 5.… I was making sure that my student was doing the proper procedure on takeoff. We were approximately 10 knots below our rotation speed when I looked up and to my left and noticed that there was an aircraft taking off [from] Runway 14…on a direct collision course [with us].*

What Would You Have Done?

Unmarked in Plain Sight

UAS Operator and Commercial Pilot's Report

■ *I was flying [a small drone] for an infrastructure inspection and training a new pilot to do the same. During the second flight with a different airframe than I usually fly, the trainee mentioned, "Well, it doesn't have the FAA sticker," referencing the registration number. I then realized I had forgotten to apply the registration number to the aircraft. The aircraft was registered and therefore had a designated UAS registration number.… I failed to apply it.*

What Would You Have Done?

The Wind in the Windows

B767 Captain's Report

■ *As Captain, I was the Pilot Monitoring (PM), and the First Officer (FO) was the Pilot Flying for this flight. On the takeoff roll at approximately 90 to 100 knots, I heard the FO make the comment, "There seems to be a lot of airflow through this window." I glanced over to see…that the window appeared to be closed. I shifted my eyes back to the runway centerline, airspeed, and engine instruments while thinking about what he said. At approximately 110 knots, it became loud with high airflow into the flight deck. The FO shouted, "My window is open." I quickly glanced over to his side to see he had his left hand on the control wheel and was holding the R2 Flight Deck Window closed by the window lock lever with his right hand.*

What Would You Have Done?

The Rest of the Story...

Dominoes in the Pattern

■ *I immediately aborted the takeoff by quickly pulling the throttle to idle and applying full brakes and taking the controls from my student. We started coming to a stop when I announced on the radio that we were aborting the takeoff because of the aircraft departing [Runway] 14. We stopped on the runway and watched Aircraft Z continue their takeoff and…not make any radio calls. Aircraft Y, I believed now on the ground,…made an 'on the go' call and departed the area to the south. Aircraft Z departed the area, and we continued our lesson with no further incident.*

After the flight, the pilot of Aircraft Y contacted me… to fill each other in. I could tell by the sound of his voice that my aborting the takeoff and his subsequent go-around really shook him up. We talked on the phone about each other's perspectives, and he said that because of… Aircraft Z [departing 14] and my aborted takeoff, that on his go-around, he almost stalled the airplane and crashed behind or into our aircraft. He was going to stay in the pattern behind us, but decided to go back to his airport after the event.

This event…may have been prevented in a couple of ways. Aircraft Z…should have been listening to the radio and should…not have taken off.… They could have waited until both aircraft were safely out of the way and back into the air before departing the runway.… I may have missed the radio call by…Aircraft Z. Maybe I should have stopped talking and listened. Aircraft Y also could have given me a bit more time to assess my situation and given my student and me some more time to take off again.

Unmarked in Plain Sight

■ *Upon this realization, I landed the aircraft, and we grounded that aircraft until the registration number had been applied, finishing our inspections for the day with an aircraft which had an adhered registration number. Contributing to this error was the fact that I had been flying two different airframes for the prior three days, and with three days in the field, I was beginning to experience some fatigue. Additionally, high temperatures and humidity were contributing to fatigue. When it came time to fly the aircraft described in this incident, I did not catch the fact that the aircraft's registration number was not adhered during pre-flight. I also realized that our pre-launch checklist did not have an item in it to check for an adhered registration. To prevent the incident from occurring again, I need to ensure that we add a checklist item for the adhered registration and be doubly careful when flying an airframe that I have not been flying regularly. As always, I need to be looking out for the effects of fatigue and ensure continued vigilance when encountering them.*

The Wind in the Windows

■ *I immediately took the controls.… We were approximately 120 knots, just prior to V1 (129). I took a quick glance at my FO and back to my instruments.… We were Vr + 8 to 9 knots. I then rotated, saw a positive rate of climb, and shouted, "Gear up." The FO assumed PM [duties] and raised the landing gear. I shouted, "Can you crank the window closed at all?" He responded, "No, it won't close." At this point, Tower advised us to contact Departure. I selected the center autopilot, VNAV, and Heading Select with a heading of 360 as assigned. I opened the speed window and remained at flaps 5 to prevent the airplane from accelerating. The faster we would go, the louder the flight deck would be, and the more the FO would struggle to hold the window in position. The FO shouted, "I can't hear anything from ATC." … I contacted Departure and informed them that we needed to stop the climb and return to the airport because we had a flight deck window open. We were given a left heading of 270 and told to maintain 4,000 feet. We performed the After Takeoff checklist. My FO stated, "I can't hear anything from ATC. What do you need from me?" I responded, "ATC is giving us vectors back for the ILS Runway XX. If you can, get flight deck performance for Runway XX and set us up for the ILS." … Once we were set up and briefings and checklists were completed, I advised ATC we were ready for the approach. Since I was flying while doing the radios myself, and the FO had only one free hand available, I decided…not…to be heads down and message Dispatch through ACARS.… The priority was to fly the plane and get us safely on the ground.… We [requested priority with] two souls…and approximately four and a half hours of fuel on board. ATC asked the nature of the [situation] and I replied, "We have a flight [deck] window cracked." I meant to say, "cracked open," however, the noise from the airflow was a little distracting. ATC gave us an intercept heading of 100 and cleared us for the approach.… A normal landing was made at approximately 265,000 pounds.… If I could have done one thing over, I would have shouted, "My controls" in a louder voice. I didn't take into consideration that the FO could not hear well at that point. I'm also appreciative of our Company training video made by Boeing of a flight with the flight deck window opened. I'm glad that it was shown…during my 767-upgrade training. I never thought I would be in that situation, but thankfully, I had some idea of what to expect. The plane will be extremely loud and distracting, but it will safely fly.*

ASRS Alerts Issued in February 2023	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	1
Airport Facility or Procedure	10
ATC Equipment or Procedure	1
Maintenance Procedure	1
Other	1
TOTAL	**14**

519

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

https://asrs.arc.nasa.gov

February 2023 Report Intake	
Air Carrier/Air Taxi Pilots	5,834
General Aviation Pilots	1,334
Flight Attendants	606
Controllers	456
Mechanics	274
Military/Other	244
Dispatchers	167
TOTAL	**8,915**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 525 October 2023

What Would You Have Done?

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The First Half of the Story

Part 107 – Night Stealth

A UAS Pilot's Report

■ *I was Pilot In Command (PIC) of a drone, who observed… while on a photography session, another small UAS operating with no anti-collision lights during dawn. I had two anti-collision strobes…activated and operating continuously. I immediately evaded the area to avoid a collision, since the other PIC was flying erratically. I departed about 150 feet north, and the other PIC followed and continued to fly erratically below me.*

What Would You Have Done?

Part 91 – To Go or Not to Go

A Hot Air Balloon Pilot's Report

■ *Following an uneventful morning hot air balloon flight, as I descended to land, I realized the ground wind speed was much faster than the air I had been flying in at approximately 800 feet AGL. I utilized a drop line to my ground crew near the northwest corner of the intersection. Although the ground crew was able to grab the drop line, the wind was such that they could not hold the balloon against it. As there was a crop of soybeans there that I didn't want to damage, I…*

What Would You Have Done?

Part 91 – Maverick Waves

A Light Transport Jet Pilot's Report

■ *While cruising at FL450 near HVE, we encountered a mountain wave, which smoothly descended us to FL448, then climbed us to FL455. Then suddenly, the aircraft began a rapid descent in which the stick shaker activated.*

What Would You Have Done?

Part 121 – Powered Cabin Devices

An A320 Captain's Report

■ *At the completion of our boarding process, as we received our baggage loading record, I was notified by the Lead Flight Attendant that a mobility device battery had been brought to the cabin by a passenger as a carry-on.*

What Would You Have Done?

Part 121 – A Gear up Surprise

A B767 Captain's Report

■ *We received a mechanically sound…aircraft to fly.… After addressing several cabin-related maintenance issues during the late boarding phase, we were finally able to get the aircraft…ready for departure. Pushback and taxi-out were non-eventful. Approaching the hold short [line]…we were cleared to line up and wait. Subsequently, before entering the runway, we were then cleared for takeoff.… We verified the runway, cleared left and right, noted the fuel on board, took the runway…and began our takeoff roll.… After the 100-knot call and prior to V1, I…heard something that sounded like something had fallen to the floor. A…glance at the engine gauges, then eyes back outside. V1, rotate, positive rate, gear up, boom! As if the engine failure was connected to the gear handle itself.*

What Would You Have Done?

The Rest of the Story...

Part 107 – Night Stealth

■ *I…departed the area and landed to avoid a collision. I… drove to find the PIC of the [other] UAS and asked if he was the operator.… He replied…he was. I then discussed with him if he was a Part 107 pilot. He replied he was.… [I] asked why he did not have anti-collision lights on and recommended he ... use one during night or dawn operations. He stated he didn't need to use anti-collision lights because he was flying under recreational/hobbyist flight rules. I informed him regardless he must have anti-collision lights on during dawn and night operations … to avoid an incident.*

Part 91 – To Go or Not to Go

■ *I waved off my crew and flew on. Crossing a slight ridge in the direction of flight revealed a large grassy field. I shut off my fuel and pilot lights, reviewed the landing procedures with my one passenger, and prepared for a high wind rip-out landing. We landed on the farm…1,200 meters west of the earlier aborted landing. The basket landed fairly hard, tipped over, and was dragged before coming to rest in the field. When the basket tipped over, the passenger landed on top of me. On coming to a stop, the passenger said she had stepped on her ankle with her other foot. There was no damage to the aircraft and no property damage. The passenger was able to walk on her sore ankle and rested while the aircraft was recovered.… I was…able to convince her to be evaluated. … She required surgery…and a plate to stabilize her ankle.*

Part 91 – Maverick Waves

■ *The Captain, who was the pilot flying, immediately initiated the stall recovery procedure. The descent was stopped by FL430. ATC was notified that we were unable to maintain altitude. ATC then issued us a block altitude of FL410 to FL450. We then slowly climbed back to FL450 without incident.*

Part 121 – Powered Cabin Devices

■ *I went to the jetway to check with the Gate Agent in order to get the details. The passenger had used a partially foldable mobility device. I asked the ramp worker who had delivered the baggage loading record about the device, and they confirmed that it had been loaded without a battery and that the device's exposed battery was removed before bringing the device downstairs. The Gate Agent put me on the phone with the Gate Supervisor, and they confirmed that for certain mobility devices, they remove the battery and have the passenger board with the battery as a carry-on. They said that it was something that was not unusual. The battery was in a protective molded housing that was obviously designed for the particular device with unexposed terminals. During our phone conversation, I referenced the General Operations Manual and the Company's dangerous goods table. There are three table entries for batteries in general and another five entries for mobility aids. It appeared that the device we had loaded fit the description of a collapsible mobility aid, which allowed for the battery to be removed and carried in the cabin. I briefed the Lead Flight Attendant about my conversation with the Gate Agent and we departed.*

Part 121 – A Gear up Surprise

■ *I stated, "Engine failure." Another pilot echoed me.… Then we commenced…the engine failure procedures.… The engine failed climbing through approximately 200 feet AGL. We… climbed out tracking the runway centerline, requested priority handling…and began coordination with ZZZ Tower for an air turn-back and to have Crash Fire Rescue (CFR) on scene for our arrival. We had [Tower] notify the Company of what had just happened. A series of right turns…positioned us for the Runway XXL approach, the longest runway…available. For future note, no instrument approach [was available] to XXL, and therefore [there were] no instrument runway approach lights. We were heavy, overweight, single-engine, not absolutely certain of the status of the left main landing gear, night, VFR, and clear and a million. We stayed with [Runway] XXL. I continued to fly the plane; the First Officer and Relief Pilot ran the QRC/QRH. We got vectors from Departure and leveled off at 2,500 feet for the remainder of the event. We communicated and coordinated with Flight Attendants (FAs) in the cabin. We explained to the passengers what happened and that we were returning to ZZZ. We completed checklist and performance items and positioned the aircraft for landing on Runway XXL, flaps 20. We finally picked up the VASIs, flew them down to touchdown, made a long rollout to a stop, then began to coordinate with CFR to address our hot brakes. There was more coordination and communication with the FA crew and passengers. We kept them seated with the seatbelt sign on…for the entire brake cooling event. It was…83 minutes from stopping on the runway and addressing and fighting the hot brakes scenario to getting to the gate.… Everything worked rather smoothly from start to finish…and there was no further damage or injury to aircraft or personnel.*

Learn More About ASRS UAS Safety Reporting

ASRS Alerts Issued in August 2023	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	3
Airport Facility or Procedure	13
ATC Equipment or Procedure	15
Hazard to Flight	2
TOTAL	**33**

525

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

https://asrs.arc.nasa.gov

August 2023 Report Intake	
Air Carrier/Air Taxi Pilots	5,169
General Aviation Pilots	1,653
Flight Attendants	799
Controllers	481
Military/Other	330
Mechanics	242
Dispatchers	240
TOTAL	**8,914**

CALLBACK

From NASA's Aviation Safety Reporting System

Issue 530 March 2024

What Would You Have Done?

This month, *CALLBACK* again offers the reader a chance to "interact" with the information given in a selection of ASRS reports. In "The First Half of the Story," you will find report excerpts describing an event or situation up to a point where a specific decision must be made, an immediate action must be taken, or a non-normal condition must be actively managed. You may then exercise your own judgment to make a decision, determine a possible course of action, or devise a plan that might best resolve the situation.

The selected ASRS reports may not provide all the information you want, and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to refine your aviation judgment and decision-making skills. In "The Rest of the Story…" you will find the actions that were taken by reporters in response to each situation. Bear in mind that their decisions may not necessarily represent the best course of action, and there may not be a "right" answer. Our intent is to stimulate thought, training, and discussion related to these reported incidents.

The First Half of the Story

Part 91 – A Night Sky Nightmare

An M-20 Pilot's Report

■ *Flying…on an IFR flight plan last night, it was overcast at 12,000 feet and very dark.… I had descended from 8,000 feet and was level at 3,000 feet. I was heading 290 degrees getting vectors for the ILS approach.… Approach told me to turn left to 250 degrees. During the turn, I noticed bright lights ahead and at first, thought it was an airplane very close above me at 12 o'clock flying in the opposite direction.… I ducked my neck down and tilted my head back to look up 45 degrees out the windscreen to look directly at the lights. Immediately, I thought I was flying with a very nose high, pitch up attitude and immediately realized [the lights] were not an airplane! I must have pushed on the yoke to get the nose down. I turned my head left to look out the side window hoping to make sense of what I was seeing, but the pitch blackness with only a couple lights was of no help. I immediately looked at my G5 [attitude indicator], and what I saw made my head spin! For a split second I questioned whether my G5 had malfunctioned.*

What Would You Have Done?

Part 91 – A Non-Towered Tale

A Turbo Skylane Pilot's Report

■ *It was a routine takeoff on [Runway] XX, the 6th one today. I made the usual call, "ZZZ traffic, callsign, departing XX." This was later verified by another person on the ground monitoring the advisory [frequency]. I turned onto the runway, started the takeoff roll, lifted off, and saw landing lights on a light twin on final approach to [the opposing runway]. They had made no calls at all on advisory, which was also confirmed by the listener on the ground. I hoped for a second that the twin was just making a low approach and saw us, but they continued [their] approach.*

What Would You Have Done?

Part 121 – Hidden Power for Cabin Devices

A B737 Captain's Report

■ *A customer had to check a bag due to lack of overhead space. The customer admitted to a flight attendant that…a lithium-ion battery was in the bag.*

What Would You Have Done?

Part 121 – A Close Approach

A Commercial Fixed Wing Captain's Report

■ *While flying…to SFO, we planned and briefed the BDEGA Arrival to be followed by the charted visual for [Runway] 28L. Upon checking in with NORCAL, we were assigned a heading of 100 [degrees] off of CORKK for the charted visual to [Runway] 28R. We changed the localizer frequency, reprogrammed the FMS, and briefed the new approach. We flew a right downwind and were vectored for a right base. ATC pointed out traffic that would merge for [Runway] 28L. We were assigned 160 knots. The ATIS was reporting*

winds of approximately 260/25G34. With our weight and the wind additive, the Vref was 149, and target [airspeed] was 164. ATC was advised that 164 was our slowest speed. We configured gear down, flaps 15 on base and slowed. ATC gave us another vector to join the localizer course. We had tuned [the localizer], but had not planned on using it, since [ATC] was [assigning] the charted visuals. We armed the localizer and continued while configuring for landing. We intercepted the localizer course and were cleared for the approach. The [other] aircraft was intercepting their localizer for [Runway] 28L. At about that time, we got a Traffic Advisory (TA) from the merging aircraft. I looked to find it visually. It was under our wing turning left, left wing down. At that same time, we got a Resolution Advisory (RA) to "LEVEL OFF, LEVEL OFF!"

What Would You Have Done?

The Rest of the Story...

Part 91 – A Night Sky Nightmare

■ *Thank God all my training kicked in, and I immediately disregarded the thought that my G5 was broken. At that moment, I realized I was experiencing overwhelming spacial disorientation. So, I focused on using the attitude indicator to get wings level and control the airspeed. I was in a bank of approximately standard rate. I leveled the wings first. I did not notice the horizon, so I did not immediately perceive my pitch attitude. After getting wings level, I…focused on the airspeed. The airspeed indicator was moving fast…and the numbers were increasing! I do not remember whether or not I reduced power. Before this happened, power was set at about 1,700 rpm, and I had been flying at 135 mph. Now airspeed was passing through 190 mph fast! I immediately pulled back on the yoke to reduce the airspeed and recover the airplane…. The horizon came back into view, I stopped the descent, added power, and began to climb. As I started to climb, the Controller came on the radio and stated, "Aircraft X, I got an altitude alert. Check your altitude." I could hear the Controller's alarm going off. I didn't try to communicate. I only focused on completing the recovery and controlling the airplane. I had gotten 400 feet or more off my assigned altitude. Although it felt like slow motion, this all occurred in a time span of less than 10 seconds. I got back to 3,000 feet and a heading of 250 degrees…. After a minute of silence, the Controller gave me a vector to intercept and cleared me for the approach. I've thought a lot about what happened last night and realize that a slight disorientation accelerated rapidly into extreme disorientation…. My head movements in the cockpit trying to figure things out were counterproductive and actually were a significant contributing factor to the magnitude of my disorientation.*

Part 91 – A Non-Towered Tale

■ *I pulled power, pitched down, called, "ZZZ, aborting takeoff." I was able to set the plane down and exit the runway as the twin continued the approach. About that time, the twin pilot called, "Going around," and tried to claim that he had made appropriate calls and that I had not. I suspect that the twin pilot did not turn on…landing lights until I had already taken off. Approaching against the rest of the traffic with…low light under the overcast, a white airplane would not be very visible without those lights.*

Part 121 – Hidden Power for Cabin Devices

■ *I initiated the process of having the bag removed. I asked the passenger where the batteries were, initially thinking that we could remove them, put the bag back on, then depart. The customer told me that [it was unknown] where anything was in the bag because the customer hadn't packed it.… This raised a red flag with me. The customer and the bag were removed.…I'm curious how many of these batteries are flying around in…cargo compartments. Every toothbrush has a lithium battery. We run out of overhead space all the time. These bags are going into the cargo compartments with these lithium batteries inside. Flight Operations Manual (FOM) guidance on this doesn't seem to exist.*

Part 121 – A Close Approach

■ *I had already had the autopilot and autothrottle off to hand-fly the approach. We started the go-around response to the RA. As we were bringing the flaps up, the RA changed to "CLIMB – CLIMB NOW!" We continued with the escape maneuver and climbed to approximately 3,400 feet MSL. ATC assigned us 3,000 feet after we finished the RA response. We complied and subsequently flew another approach to an uneventful landing. During the RA response, the RA aircraft symbol showed the [other] aircraft at -100 feet. I visually looked, and it was jarring how close the aircraft had come to us. It was under our wing, and I can confirm the 100 feet separation. If I had selected the TCAS to TA only, we could have…descended down on top of him and been involved in a mid-air collision.*

Learn More About ASRS UAS Safety Reporting

ASRS Alerts Issued in January 2024	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	6
Airport Facility or Procedure	5
ATC Equipment or Procedure	1
TOTAL	**12**

530

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189, Moffett Field, CA 94035-0189

https://asrs.arc.nasa.gov

January 2024 Report Intake	
Air Carrier/Air Taxi Pilots	7,756
Flight Attendants	3,105
General Aviation Pilots	1,453
Military/Other	601
Dispatchers	406
Controllers	371
Mechanics	293
TOTAL	**13,985**