

DCA23FA417

OPERATIONAL FACTORS

Flight Crew Statements

September 6, 2023

Captain's Statement/Incident Report – Flight 1288 (SEA to SNA), August 20, 2023

The day of August 20th began at home. I was in the middle of a three-day trip with a Burbank layover which is 20 minutes from my home. A very relaxing day as it was raining, and my wife and I didn't do a whole lot. She drove me to the airport around 2:30 pm. The FO and I were set to depart to Seattle. After a delay of over an hour, we flew to Seattle, which was uneventful. We arrived approximately 19:44

In Seattle, we had a plane swap over to flight 1288 scheduled to fly to SNA, as a result of the delay coming in, we had an SNA curfew to consider (explained further below). We were originally scheduled to leave SEA at approximately 19:40. During our pre-flight checks, everything checked out normal except a "speed trim light" illuminated on the overhead panel. We wrote this in the aircraft logbook and contacted Maintenance. The Mechanic arrived and fixed the issue with an inertial reference system realignment.

Seattle weather was good, and SNA weather was reporting OK and improving, we had an Ontario alternate also. Neither of us were feeling fatigued. We left SEA at 20:17. I was the pilot flying, and the FO was the pilot monitoring.

Once airborne, we realized we weren't going to make the 23:00 curfew at SNA, meaning the airport would be closed; it was showing arrival at 23:10. We sent an ACARS message to dispatch informing them of our ETA. Soon after, we received a message back from Dispatch with a curfew extension until 23:30.

During flight, we were monitoring the SNA weather closely as bands of rain kept passing through the area. We had no messages or chimes at any time during the flight. We received Pireps about turbulence from Air Traffic Control, for our descent. We briefed the Flight Attendants on the weather and had them clean up early and take their seats. We got an update on the weather, pulled landing data, determined our LTP, briefed and set up for a Captain Flown ILS20R at SNA. Flaps 40, auto brakes 3 and a 14 knot wind additive. The latest touchdown point (LTP) was just over 1,900 feet down the runway. I have Flown into SNA many times in all different weather conditions.

Descent was light turbulence and areas of moderate rain. SNA was reporting moderate rain and gusty winds. While on the Arrival procedure, new SNA weather came out with winds now variable at 3 knots. We adjusted our wind additive to standard, which is VREF plus 5 knots. We were given a phone number to close our flight plan on the ground as the tower was now closed. We intercepted the ILS, and we were established approximately 8 miles out. Prior to the Final Approach Fix, we were fully configured and completed the Before Landing Checklist, and everything appeared normal. We were also making position reports on CTAF as the tower was closed. Moderate rain, shifting winds, light turbulence and IMC conditions encountered until we broke out at about 800 feet AGL. Winds were decreasing in velocity. We crossed the end of the runway on glide path, speed, and centerline. Touchdown was just past the 1,000 foot marker. While the weather was increasingly better, the FO and I had discussed a firm

touchdown being appropriate. During the decent, all systems were operational, and all the landing gear lights were green, indicating they were properly deployed.

Upon landing, the touchdown had a firm jolt feeling to it, and the aircraft was pulling reasonably hard to the left. I was able to overcome this with the rudder pedal and then able to keep the plane on the center line. I stated to the First Officer that it felt like we may have a flat tire. I slowed the aircraft to taxi speed and decided to turn off the runway. After we made the turn, I was now aware that the aircraft was leaning left.

As something appeared wrong, I set the parking brake, opened my window, and looked outside. To my surprise the aircraft was resting on the engine cowling, which appeared to be still running normally. I didn't see any smoke or fire, and it was now raining harder.

I conferred with my First Officer, and we chose to shut the engine down, started the APU and shut down the number two engine also. I made announcements to the cabin, the Flight Attendants were briefed, and no injuries reported.

At that point, we were in contact with Operations, Maintenance and the airport fire department and ATC. Maintenance and Fire quickly arrived and stated they saw no leaks outside the aircraft. We shut off fuel pumps and hydraulics. We chose not to evacuate, instead coordinate stairs and busses for the passengers. We chose to deplane from the R1 door as there was no damage apparent on that side of the Aircraft. Once all the passengers were deplaned, we made sure everyone was off the aircraft, made a logbook entry and walked around the outside, conferred with the Mechanics on site and rode the shuttle with the crew to the terminal. Nothing wrong was noted in the condition of the aircraft by the Flight Attendants or Passengers throughout the flight.

We arrived at the terminal at approximately 01:30 am, and we were in contact with Dispatch and the Flight Operations Duty Officer who informed us that we would remain at the airport until we had drug testing conducted. We completed our drug tests at around 02:30am and drove home.

First Officer's Statement/Incident Report
AS Flight 1288, SEA to SNA, August 20, 2023

Preflight

Earlier in the day, we were operating flight, AS1150 (Aircraft N528AS) from Burbank to Seattle. The flight was delayed for about 1.5 hours due to a lack of ramp personnel at Burbank as a result of the weather that was passing through Southern California at the time. Fatigue was not a factor, since we just had 16.5 hours of overnight rest in Burbank. Throughout the flight from Burbank to Seattle, we assessed the weather and started planning out our strategies for dealing with our subsequent flight, AS1288 (Aircraft N516AS). I brought extra clothing with me in case we ended up getting stuck in Seattle, so I wasn't particularly worried. Upon arriving in Seattle, we worked efficiently to get to our next flight, AS1288. We knew we would be slightly delayed, but felt we had ample time to perform our duties.

Dispatch planned AS1288 with an alternate of Ontario, plus an extra 35 minutes of fuel for weather deviations, altitude adjustments, and possible delays on the arrival. Terminal Aerodrome Forecast for Orange County showed visibility of at least 5 statute miles, with winds forecasted to be 150 degrees at 13 knots with gusts up to 20 knots at 9pm, shifting to 170 degrees at 10 knots with gusts up to 20 knots at 1am. Cloud ceilings were forecasted to be Broken (covering 1/2 to 9/10 of the sky) at 1000ft above ground level at 9pm, gradually rising to Broken (covering 1/2 to 9/10 of the sky) at 1am. Rain was still in the forecast for 9pm but was changing to more of light showers and rain by 1am. Field Conditions reported at Orange County was stated at 5/5/5, which showed that the braking action and friction values of the surfaces are good. From the weather reports and forecasts, we felt pretty comfortable with conducting the flight from Seattle to Orange County.

During the preflight phase, the captain discovered a SPEED TRIM FAIL light and entered it into the maintenance logbook. Soon after we notified maintenance, the light self-extinguished. Maintenance personnel came on board and concluded that the light was due to the Inertial Reference System not being fully aligned at the time, and no further action was required. The aircraft was returned to service fairly quickly. At this point, we figured that the flight was only about an hour behind schedule, and we were comfortable with operating the flight. Additionally, I did not find any issues with the aircraft during my exterior walkaround. Once maintenance control returned the aircraft back into service, we felt the condition of the aircraft was acceptable for flight, since no other maintenance issues were present or noted.

In anticipation to the weather conditions at Orange County, coupled with the short landing runway at night, we agreed that the captain will be Pilot Flying while I assumed the duties of Pilot Monitoring.

Departure and Climb

Uneventful. We were relatively light, since we were only about 2/3 full. We reached 39,000 feet fairly quickly. Once at cruise and the rides were smooth, we turned off the seat belt sign.

Cruise

We continually monitored the weather situation along our route, as well as Orange County. Using data provided by WSI (our official iPad weather application) and our onboard radar, we determined that most of the significant weather would be north of Orange County at our estimated time of arrival. Also, the weather was generally east of our flight plan route, so no significant deviations were required. In fact, we even received approvals for shortcuts along the route. Flight Management Computer on the aircraft predicted us to land at Orange County at approximately 11:15pm with a calculated fuel on board of more than 8000lbs upon landing. Knowing that there is a landing curfew at Orange County at 11pm, we messaged dispatch to ask for an extension to the curfew. Dispatch agreed, and was able to coordinate with airport authorities to extend the curfew for us to 11:30pm.

Throughout the cruise portion of the flight, the captain and I discussed about our strategy, should a missed approach become necessary. Even though Ontario was our planned alternate, I mentioned the possibility of diverting to LAX as another viable option, since it has four runways, and had more Alaska Airlines personnel and resources to deal with our passengers and aircraft. Forecasted weather for both Ontario and LAX were within acceptable parameters. Both the captain and I agreed that, depending on the location of the aircraft on the missed approach (if there was one), as well as the weather and air traffic at the time, we will divert to either Ontario or LAX. Fuel was sufficient for diversion to either of those two airports.

Prior to our top of descent, I double checked the weather at Orange County. The weather report was showing that the winds were favoring runway 20R, coming in slightly from South-South-East with a velocity of 13 knots with gusts up to 21 knots. Visibility and ceilings also favored the Instrument Landing System (ILS) 20R approach. Heavy rain was present in the weather report, but the Field Conditions showed 5/5/5 (good braking action and surface friction). I manually entered the parameters from the weather report into the flight computer in order to obtain landing performance calculations, once for autobrakes at MAX, and another for autobrakes at 3. When the performance data came back to us, it showed landings were acceptable at Flaps 30 with autobrakes set at either 3 or MAX. It also showed that the landing performance was acceptable at Flaps 40 with autobrakes 3. Additionally, the landing performance data showed an approach additive of +14 knots, given the wind conditions. With the weather conditions and the short runway at Orange County in mind, the captain programmed the ILS approach for Runway 20R, with Flaps 40 and autobrakes 3 planned. We both double checked our navigation frequencies and course selections for the approach, as well as all the waypoints and the associated restrictions on the OSHA 2 arrival. The touchdown was

discussed to be firm and not past the Latest Touchdown Point, as expected on a short runway at Orange County during a rainy evening.

After completing our briefing, we contacted the flight attendants to set up an early sit procedure, since we had anticipated light to moderate turbulence during the descent. I then made a PA announcement to the passengers about the arrival time, the weather at Orange County, and our intentions to have everyone seated and secured early in anticipation of the turbulence. Everything was fairly routine. We went through all of our procedures and checks without finding anything that was abnormal. Neither the flight attendants nor any of the passengers mentioned anything out of the ordinary.

Descent and Approach

After given the clearance to descend via the OSHEA 2, the turbulence was much better than expected. It was mostly light chop, with hardly any moderate chop at all. Since Orange County tower was to be closed prior to landing, air traffic control gave a phone number for us to call to cancel our instrument flight plan after we landed. Towards the end of the arrival, a new weather report generated at Orange County showed a general improvement in the weather conditions. Heavy rain turned into just rain, and the ceiling and visibility remained unchanged. Moreover, surface winds were now Variable at 3 knots, so I reset the speed additive for the approach to +5 knots.

We were vectored on the downwind side. Since there were no other traffic in the area, the captain slowed the airplane and started configuring early. At 3000ft, on the base leg just outside of HUKEM, we were cleared for the ILS 20R approach by air traffic control. All callouts and procedures were standard, and the aircraft was fully configured outside of LEMON. As soon as Localizer and Glide Slope were captured, I set the Missed Approach altitude in the altitude window to 3000ft., in case we needed to go-around. The aircraft was on path, on speed throughout the entire approach. All three landing gear indicators were green.

At the beginning of the approach, it was a little windy. However, the winds started to die down as we got closer to the runway. Initially, the wind vector on our instrument panel showed a quartering tail wind from the left at about 12-15 knots, then started to turn into a left quartering headwind, decreasing to approximately 10 knots as we got closer to the runway. Since the captain was Pilot Flying, I gave him feedback on the winds whenever I could without overwhelming him. We saw the runway at approximately 800ft above the ground, and I confirmed the sighting of the runway at approximately the 1 o'clock direction within our field of view. As soon as approach switched us to advisory frequency, I began to announce our aircraft type, position, and intentions on Orange County Common Traffic Advisory Frequency, since the tower was closed at this time. With all final checks completed, everything appeared normal.

Landing

As soon as we saw the runway at approximately 800ft above the ground, the captain disengaged the Autopilot and Autothrottle, and manually landed the aircraft. I continued to monitor our status, noting that the aircraft was on speed and on path. The aircraft touched down just past the 1000ft markers. Touchdown was firm but not hard. Shortly after touchdown, I felt a slight swerve to the left, but the captain was able to get back onto the centerline right away. Initially, I thought it was due to a crosswind. However, the captain soon said he felt one of the left tires might have been blown out but also said that he felt he still had control of the aircraft, and should be able to taxi off the runway to the gate. I continued my standard callouts, noting the speed brakes had deployed, the thrust reversers were engaged, and the aircraft was decelerating in a normal fashion.

After Landing and Shutdown

After landing, the aircraft slowed to taxi speed, turned off the runway and onto Taxiway E. I completed the after-landing procedures, which included bringing the Auxiliary Power Unit online. As soon as we turned onto Taxiway E, the aircraft really started to tilt to the left. The captain stopped the plane, opened his side window and said the left main gear had collapsed, and that we were basically resting on the left engine cowling. He immediately shut down the left engine and noted that the left landing gear indicator light was not green anymore. The left main landing gear indicator light had gone completely dark, whereas the nose and right gear indicator lights were still green. We decided that we could no longer move the aircraft under our own power so, after confirming the Auxiliary Power Unit was online, the captain shutdown the right engine.

On the Common Traffic Advisory Frequency, I continued to announce that our left main gear appeared to have collapsed, and that we are disabled on Taxiway E, unable to move any further. Orange County crash and fire rescue immediately responded on the radio. They said the airport was now closed and they would be coming over to the aircraft immediately to inspect it. After calling the flight attendants to make sure that no one was injured in the cabin, the captain made a PA, asking everyone to stay seated, and that the Orange County crash and fire rescue personnel are on their way. Within minutes, Orange County crash and fire rescue arrived at the aircraft. They determined there were no fuel leaks, and no immediate threat to our passengers and crew. Since the aircraft was disabled on Taxiway E, their recommendation was to deplane everyone via a set of stairs.

I coordinated with our Orange County company operations as well as our maintenance personnel to explain the situation and requested for the stairs for deplaning. Maintenance personnel arrived fairly quickly as well, and requested that the electric hydraulic pumps to be shut off. Initially, the stairs were set up for deplaning via the L1 (Left Forward) door. However, after seeing that the damage was to the left side of the aircraft, maintenance personnel

suggested that deplaning everyone via the R1 (Right Forward) door would be much safer. The stairs were subsequently moved to the R1 (Right Forward) door, and after ensuring all the passengers had deplaned with all their belongings, the flight attendants exited down the stairs via the R1 (Right Forward) door as well. The captain and I then completed the Shutdown and Secure Checklists, leaving only the Auxiliary Power Unit and the battery on for the maintenance personnel, before leaving the aircraft ourselves.

Retrospect

In the past, I have landed in similar weather conditions without incident. I feel that every portion of this flight, until after we landed, was fairly routine. Prior to landing, no one, including the flight attendants and the passengers, mentioned anything out of the ordinary. There were no abnormal cockpit indications, aural or visual, prior to touch down at Orange County. That included the landing gear indicators. The captain flew a textbook approach and landing.