



NOAA G-IV Begins Winter Storms Research

January 16 - February 28, 2007

Archive

Day 1, January 16, 2007

The G-IV crew arrived just fine to Oahu, Air Service Hawaii. The plane is healthy; the container made it fine and is under cover. No NCEP mission for Wednesday. We expect to head out to Air Service Hawaii tomorrow, unload the container and do a little TLC on the jet. Then await NCEP's call. Thank you to everyone at AOC who worked hard getting us ready for deployment.

Day 2, January 17, 2007

The word from CARCAH this morning was no Thursday requirements from NCEP. We will head for the jet this morning to remove room and office items from the container. It took a total of 11.0 hours yesterday to make it over to Honolulu (strong sub-tropical jet right on the nose for awhile), so coupled with the flight time of last week's system check-out flight, there are 147.3 hours remaining.

Day 3, January 18, 2007

The G-IV has Winter Storms Reconnaissance (WSR) tasking for Friday, January 19th. We will fly well to the north northwest to gather data on a gathering winter storm that is forecasted to impact SE Alaska about Sunday. Track 54 has 17 planned drops and we anticipate a roughly 1930Z 90930 local time) take off and an 8-hour mission. Presently, the Saturday outlook is negative for Winter Storms Reconnaissance (WSR) flying, but we'll have that verified by POD time on Friday.

Day 4, January 19, 2007

The G-IV crew is preparing the aircraft to fly a Winter Storms Reconnaissance (WSR) Track 54 today with 17 planned drops. Today's work is to help improve the forecasting on a winter storm heading for SE Alaska and coastal Canada. Tomorrow we do not have a NCEP tasking. Second day outlook for Sunday is also negative at this time. We intend for tomorrow to be a hard down day to get ready for work next week.

Day 5, January 20, 2007

What looked like a fine inaugural G-IV Winter Storms Reconnaissance (WSR)-07 mission yesterday went downhill just before the halfway point when we experienced serious communication problems with both of the G-IV satcomm links to NCEP and the forecast models. While it continues to look like the comm problems are at the receiving end of the data transmissions, the bottom line was that only the first 7 of the 17 temp drop messages made it into NCEP before the WRF model cutoff time. The crew was finally able to email the remaining 10

messages to Steve Renwick, our CARCAH contact working from Keesler AFB yesterday, and he was able to get the messages into the military system, but it's still uncertain if they made it over to NCEP.

Today's hard down for most of the crew while we do some head scratching and brain storming. We might not be able to effectively test the comm systems until Monday, when the appropriate experts are at work at the NWS Telecommunications Gateway. But we'll continue to work on this end of the problems, and investigate alternate ways of getting the data through should our primary systems continue to struggle.

Yesterday's mission was ops normal otherwise, blocked 7.7 hours, 17 for 17 good sondes. The G-IV has no Sunday tasking, and the second day out look for Monday is also negative. Sunday will be our hard down day. Work continues on our comms systems, although it looks like most of the trouble is at NWSTG. Updates as I get them.

The findings and developments from here in Hawaii, back at AOC, at the NWS Telecommunications Gateway (WSTG) and at Keesler AFB indicate the following about our present ability to send temp drop messages from the G-IV.

1. There is an apparent hardware (modem) failure at the NWSTG that has our Inmarsat system incapable of sending the temp drop messages. It sounds like the electronics techs at NWSTG will look into this problem Monday morning. Jeff Smith is working on this one, and we look forward to an update on Monday.
2. The Iridium system worked aboard the G-IV today, linked fine several times and failed once. We consider this system up but not totally trustworthy. A spare R/T unit is on its way to Air Service Hawaii, should be here by Sunday afternoon. Thank you Jim Roles and Patty Merek for handling the shipping from Tampa.
3. John Hill and Mark Rogers worked up a system today to send the temp drop messages via FTP to an AOC server, from there to go landline up to NCEP. Mark says this method works from Stations R1 (Flight Director) and L3 (secondary Aspen station), and is simpler than our other transmit methods. He and John have hopes of this system becoming primary following lots of monitoring.
4. Lt Col Steve Renwick has worked long and hard since yesterday's G-IV mission to find ways to have the temp drop messages that we can email to him (in his position of acting CARCAH from Biloxi) move from the military to civilian systems, so they can be picked up by NCEP from certain web sites. It looks like the approach is now up and working. We will see to it that CARCAH Miami is in the loop on these developments.

Considering that 3 of these 4 systems are up, we feel we're mission ready and will have Sunday be a hard down day. I expect to see more ground testing on Monday, either before a tasked mission or in the AM Hawaii time if we don't receive Monday tasking. Ma halo very much for all the support from any different people in many different time zones.

Day 6, January 21, 2007

The G-IV is negative for NCEP tasking for Monday. We will plan to install the Iridium R/T and some testing Monday morning. Enjoy the playoffs today and thanks again for all the support back home yesterday.

Day 7, January 22, 2007

Looks like our P-3 colleagues at St. John's get all the activity right now ... the G-IV is again double negative, no NCEP mission for Tuesday and the outlook for Wednesday also negative. We anticipate some comms testing aboard the G-IV today to check out both Iridium and Inmarsat systems.

Day 8, January 23, 2007

No NCEP tasking for the G-IV for Wednesday and the second day outlook is low probability for Thursday as well. More communications testing from the G-IV today.

Day 9, January 24, 2007

Again, no tasking for the G-IV crew for Thursday, January 25th. We will again be out at the jet this morning and begin Iridium satcomm testing. We'll summarize our communications status later today.

Day 10, January 25, 2007

The G-IV has no NCEP tasking for Friday, with a second day outlook for a possible mission on Saturday. The Science and Engineering team successfully tested FTP and email methods of tempdrop message transmission on both Inmarsat and Iridium yesterday. While work continues at MacDill, the NWSTG, and her on the (former) primary Inmarsat and Iridium systems, we will plan to do whatever work is necessary today and call tomorrow a hard down day anticipating busier times head.

Day 11, January 26, 2007

The G-IV is tentatively tasked for Saturday, January 27th. We estimate to be out there for about 6.5 hours and cover 14 drop points. It sounds like the NCEP staff will re-evaluate this one tomorrow, so we expect a go/no go tomorrow morning. The second day outlook for Sunday is negative at this time.

Day 12, January 27, 2007

The G-IV is a go for a mission today. No Sunday tasking. We'll work with CARCAH west on today's flight.

Day 13, January 28, 2007

Looks like no NCEP tasking for the G-IV for Monday, 1/29. The jet crew had a fine 7.2 hour mission yesterday, launching 16 dropwindsondes over 14 drop points to the northeast of the Hawaiian Islands. The flight was primarily to characterize a region of diverging air at the leading edge of the jet stream maximum. The position and strength of the jets are a major driver in winter storm intensification. Much better success in message transmission yesterday, with all observations making it into EMC before the WRF model cutoff time. Thanks to everyone who

was carefully monitoring the FTP system in place to handle this critical element of the G-IV missions.

Day 14, January 29, 2007

No NCEP tasking for the G-IV today or Tuesday. Instead, the Science and Engineering Division and Aircraft Maintenance Division people will head out to the plane to blow some pressure lines and possibly look into the dead CSD computer used to measure Ozone on the WSR missions. Very breezy and showery in Honolulu today.

Day 15, January 30, 2007

No G-IV tasking for today or Wednesday. Today we're taking a hard down day to await busier periods. There was some mention in the NCEP discussion today about possible flight activities from Alaska next weekend or so. We'll keep an eye on this possibility and plan accordingly.

Day 16, January 31, 2007

The G-IV has NCEP tasking for Thursday, 2/1, flying to initialize the forecast on winter weather that will impact the northeast about February 5th. The second day outlook for Friday is presently negative.

Day 17, February 1, 2007

Looks like the Flight Operations folks are clairvoyant - the G-IV was not on their flight schedule for today, and just now I heard from NCEP that we're canceled for today's mission. We'll have an update shortly for tomorrow and Saturday, but for the moment, no flight for today. The Science and Engineering group will go to the jet for more communications testing.

Following this morning's cancellation of today's NCEP mission to the NE of Hawaii, the POD indicates nothing for Friday as well. The Science and Engineering group will conduct some communications testing on the G-IV today or tomorrow. Otherwise, we'll see a rare cold-frontal passage through Oahu this evening and are preparing our parkas as I type. This evening we say Aloha to Jackie Almeida as she wings eastward. Jackie has a little more shipboard duty time before PCSing to AOC. She has gained very valuable flight director and ground data QC experience while joining the G-IV crew in Hawaii. Ma halo for your help we look forward to your return.

Day 18, February 2, 2007

It's a Groundhog Day POD for the G-IV crew. No NCEP mission today or Saturday. The SED group will do some communication testing today followed by a hard down day tomorrow.

Day 19, February 3, 2007

Yesterday was Groundhog Day, today just feels like it. Same word from NCEP, nothing for today or Sunday. Sunday will also be hard down, getting ready for the next work week.

Day 20, February 4, 2007

The G-IV does not have a NCEP tasking for today or Monday. There is a glimmer of possible activity on Tuesday where NCEP is looking at a long track to the NNW. They give that prospect a 50-50, so we'll hang on for one more day and see what tomorrow's update holds for us.

Day 21, February 5, 2007

The G-IV crew has tasking for Tuesday, a relatively short (about 6.5 hours) track to the north of Hawaii, to support the forecasting of a heavy rain/snow event in northern California in a few days. The second day outlook for Wednesday looks negative at the moment.

Day 22, February 6, 2007

The G-IV has tasking for today, tomorrow and possibly for Thursday as well. Today it's north of Hawaii, Wednesday a longer track to the NE to help forecasting for a significant rain/snow event in northern California later in the week.

Day 23, February 7, 2007

The G-IV crew completed a 6.8 hour mission on Tuesday. Today the crew plans to launch the G-IV for a 7.5 hour mission to the NE of Hawaii. They're still working the same storm area as yesterday, that will impact the US west coast in a couple more days. Word from CARCAH is to fly again tomorrow, then the second day outlook appears negative.

Day 24, February 8, 2007

Aloha.

Day 25, February 9, 2007

Looks like the dry spell is at least temporarily broken. The G-IV crew is tasked for a flight on Saturday, a 'relatively' short mission of a little more than 6.5 hours. This one is in support of a future precipitation event in Arizona and an East Coast storm.

Today's a hard down day, following a 3-day run of productive WSR-07 flying in support of the forecasting effort on heavy rain/snow in northern and central California today through this weekend. The crew flew Tuesday through Thursday, aloft a total of 22.3 hours, launched 45 dropwindsondes and covered about 8,750 miles of WSR-07 track.

Day 26, February 10, 2007

The crew is getting ready to fly north of Hawaii, in support of forecasting for both precip in the US southwest and on east coast winter storm. Today it's a little more than 6.5 hour mission flight. Sunday the crew is tasked for a long one out to the ENE of Hawaii. The outlook for Monday is negative at this time.

Day 27, February 11, 2007

The G-IV crew returned Saturday afternoon from a good 6.4 hour mission north of the Hawaiian Islands in support of a NCEP Winter Storms Reconnaissance pattern, proving weather that will ultimately impact both precipitation in the US southwest and the forecasting accuracy of a midweek winter storm near the US east coast. Today the crew plans to head out well east of the islands, proving the same systems as Saturday's flight. No G-IV tasking for Monday, Feb. 12, and the outlook for Tuesday is unlikely for G-IV tasking as well. However, it looks like there will be several days of East Coast tasking for the Air Force Reserves this week, probably delaying their WSR-07 Alaska availability by a few days.

Day 28, February 12, 2007

The G-IV crew completed a steady WSR-07 period Sunday afternoon by finishing a flight to the ENE of Honolulu. By engine shut-down time yesterday, they had flown five WSR missions in the last 6 days, been aloft 36.5 hours, covered about 17k miles of track, launched 76 dropwindsondes and transmitted 72 tempdrop messages to NCEP. Today, I think our crew will get used to sea-level pressure again. All aircraft systems are healthy. Last night we toasted Will Odell's departure and John Longenecker's arrival into the project.

The G-IV crew are not tasked for today or Tuesday. We'll call Tuesday a hard down day to reset the 6-day clock of standby and/or operations.

Day 29, February 13, 2007

No tasking for the G-IV crew for today or Wednesday. Two AFRES WC-130s will arrive Anchorage later today and/or tomorrow, assuming the Alaska part of WSR-07 and effectively reducing the miniscule the odds of having to send the G-IV to Alaska this year. The WSR-07 press release is finally cleared and will hit the NOAA home page soon, but can be seen here at [WSR-07 Press Release](#).

Just in: The word of our inactivity on Wednesday turned out to be premature. Late-breaking news from NCEP is a flight for tomorrow off to the NNE.

Day 30, February 14, 2007

NCEP likes Track P56 so much, they want it again for Thursday. We can figure same drill with a 7.5 hour flight to the NNE. Still working a heavy precip event for this weekend in the Pacific NW. It now looks like the media ground event at the aircraft will be Tuesday, February 20th, 8 to 9 am.

February 15, 2007

As the N49RF relief's arrive, things continue to jump for WSR-07. The crew is presently planning to fly P56 again today. Tomorrow NCEP wants Track 35, about a 6.5 hour mission with 14 planned drops. Both today's and tomorrow's flights are in support of west coast precipitation events happening over the holiday weekend.

February 16, 2007

No rest for the winter stormers ... crew's getting ready for a Track P35 today. Track P37 for tomorrow NE of Hawaii. All the latest work is concentrating on an area of heavy precip going ashore in N. California toward the end of the weekend, going ashore in north California toward the end of the weekend, going SE then east and eventually ending up in the Mississippi Valley.

February 17, 2007

Today the G-IV crew is preparing to fly Track P37. Today's mission completes four days of synoptic coverage north and northeast of Hawaii to profile a developing area of winter weather heading for northern California and inland from there. After four in a row, there is no Sunday tasking for the Honolulu-based crew. We will attempt a hard down day for Sunday, assuming we don't have some necessary work once the jet returns late this afternoon.

February 18, 2007

After four days in a row, the G-IV crew is in non-tasked status today. With several instrument repairs that need work today and Monday, we will not be in a position to accept NCEP tasking before Tuesday. For the crew handling the flying, Monday will be a hard down day. We'll have another update Monday for both the status of our repairs, and any NCEP tasking for Tuesday.

February 19, 2007

The AOC G-IV maintenance team completed a number of mandatory inspection items as well as repaired/replaced two failed components during aircraft maintenance Sunday and today. They completed all of the inspection items that have allowed us to remain in Hawaii without our usual several-day trip to Gulfstream Long Beach this year. I very much appreciate their efforts and teamwork and the aircraft is ready for future NCEP winter storms tasking.

February 20, 2007

The G-IV has been tasked to fly track P37 on Wednesday. The track will take the G-IV to the NNE of Hawaii. Along with the Air Force flying out of Anchorage, these flights will help better forecast a late-week California precipitation event, as well as a Central-eastern US storm a few days later.

February 21, 2007

NCEP likes how well we fly track P56 so much, they've asked us to fly it again on Thursday. The G-IV crew will be read to take off tomorrow towards NNE Hawaii. Our mission will help the forecasters with a heavy precipitation event expected this weekend in the Pacific NW, as well as an upcoming plains/midwest storm event. The crew is getting ready to fly Track 37 today from rainy Honolulu. The two-day outlook from NCEP looks to be negative.

The G-IV returned from a successful mission totaling 102.7 hours flown for the project, and 57.3 hours remaining. Two CBS guests joined the crew on this flight and got some great interviews with the crew. Friday afternoon NOAA's 'Teacher in the Air' crew member, Jessica Schwarz, will be joining us from Kona for the weekend. The G-IV is tasked to fly on Thursday, with a second day outlook currently negative.

February 22, 2007

The G-IV crew is preparing to fly a track P54 today. The 2-day outlook is negative. I believe the SED'ers have some work to do, so Friday will be a work day.

The G-IV crew returned from a successful mission. Friday will be a non-fly work day, to give the SED folks some time to do some work on the data system/computers. With all the flying the crew has done over the past 2 weeks, there are 49.8 hours remaining on the project. NCEP does not have a tasking for Friday. The 2nd day outlook for Sunday is for the crew to fly for a NW US precipitation event. The crew of the G-IV welcome Jessica Schwarz, NOAA's 'Teacher in the Air', to the Island. Last night the local CBS affiliate ran a great piece about the G-IV on its 10PM news. Marty Mayeaux, Chuck Rasco and John Longenecker are now all local celebrities. They also appear to be interested in doing a story on the Teacher in the Air program if we fly on Sunday, February 25th.

February 23, 2007

Work day.

February 24, 2007

Hard down day. The G-IV has an NCEP tasking for Sunday for an early-mid week California precipitation event. The G-IV crew, assisted by Jessica Schwarz, Teacher in the Air. So far, the G-IV crew has flown 110.2 hours, launching a total of 210 dropsondes in support of NCEP missions. We currently have 39.8 hours available for the remainder of the project. We have 2 visitors from the University of Hawaii joining us for the Sunday mission flight. The local CBS affiliate has expressed interest in interviewing Jessica to ask her about her experiences after Sunday's flight.

February 25, 2007

The G-IV crew, along with NOAA's Teacher in the Air and two University of Hawaii students had a most successful mission. The G-IV is not tasked for tomorrow and the 2-day outlook is also negative at this time.

February 26, 2007

It appears the flying may slow down a bit out here. There is not an NCEP tasking for Monday and Tuesday. The outlook for Wednesday is also negative at this time.

February 27, 2007

Work day. No NCEP tasking for the G-IV crew today or tomorrow. Unless anything comes up later today that would require a change in thinking, we will re-set the clock tomorrow with a hard down day.

February 28, 2007

No NCEP tasking for tomorrow and the 2-day outlook is once again negative. In celebration of National Science Day, the G-IV crew is currently enjoying a hard down day.