

ICCAGRA SPRING 2012 MEETING

NOAA Manned Aircraft Update

15 March 2012



Jim McFadden
Chief, AOC Programs



Office of Marine and Aviation Operations

AGENDA

- **Aircraft Programs:**
 - FY2011 Summary
 - FY2012 Plan

- **Issues:**
 - Flight Hour Budgets
 - Instrumentation
 - Heavy Aircraft Future



AGENDA

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FY11 Flight Hour Breakdown

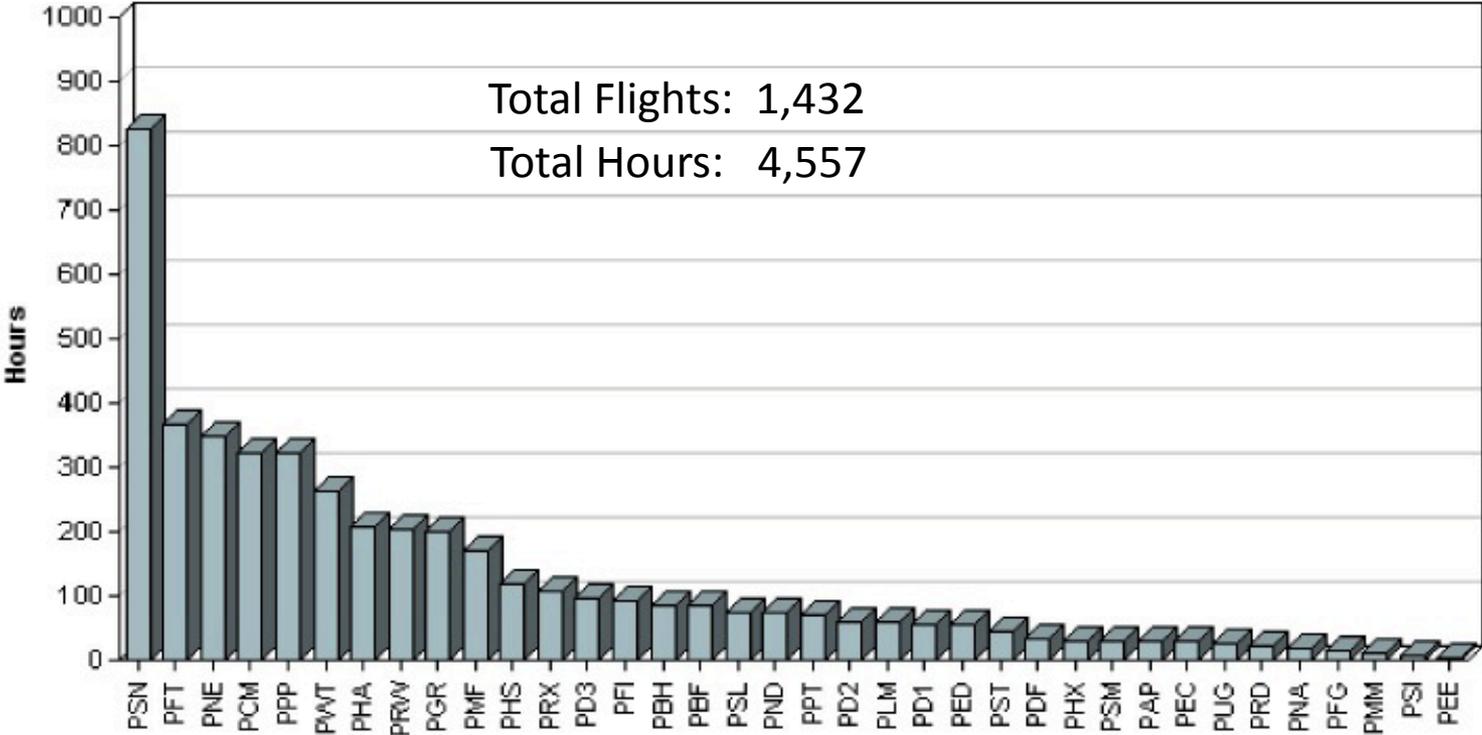
- **Heavy Aircraft: 217 flts. 1,079.1 hrs.**
 - P-3s: 131 flts. 598.0 hrs.
 - G-IV: 86 flts. 481.1 hrs.

- **Light Aircraft: 1,220 flts 3,477.9 hrs.**
 - Twin Otters (4): 648 flts. 1,993.2 hrs.
 - Turbo Cmdrt: 228 flts. 641.0 hrs.
 - King Air 350: 246 flts. 585.6 hrs.
 - Shrikes: 98 flts. 258.1 hrs.



FY11 Flight Hour Summary

Total Hours by Project



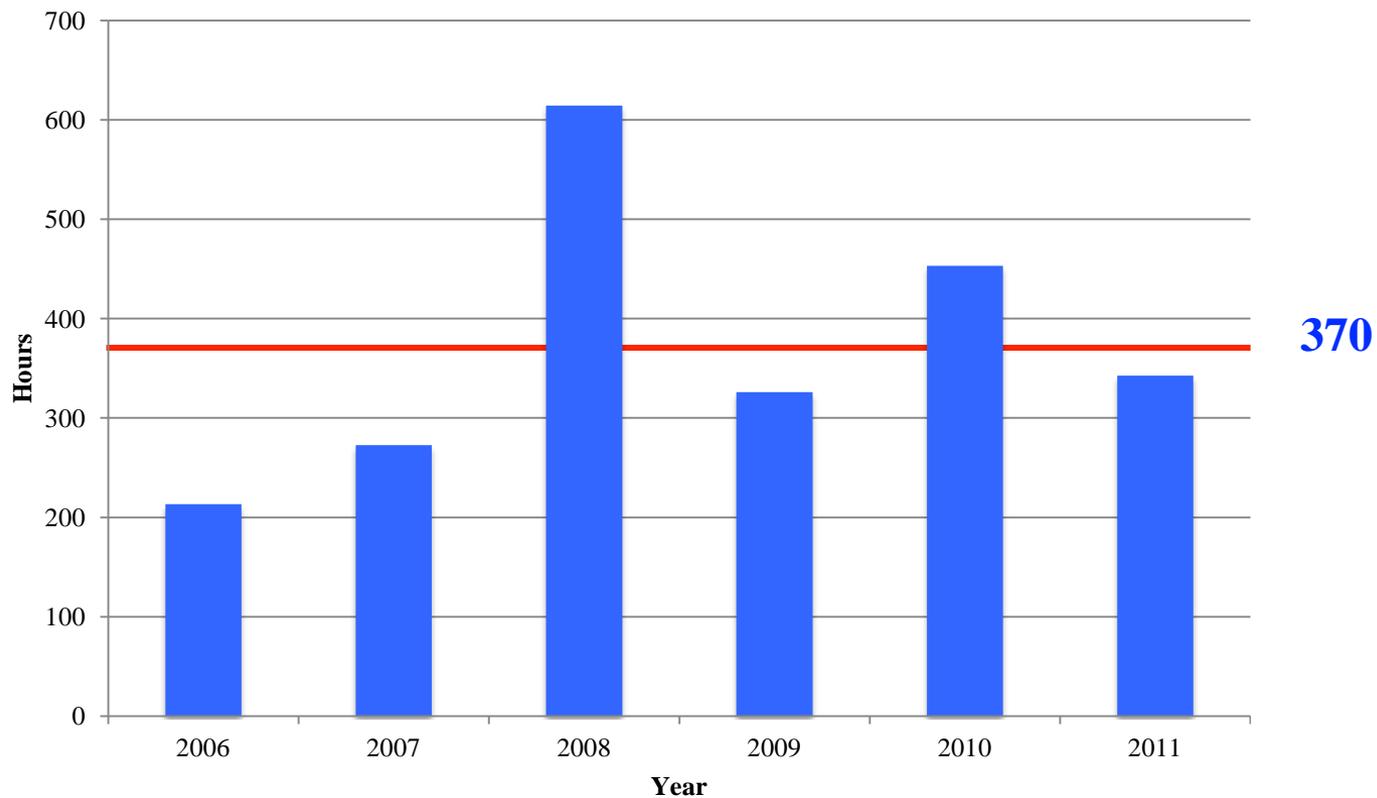
2011 Hurricane Summary

• P-3	198.3 hours	31 flights
• G-IV	144.2 hours	18 flights
Total	342.5 hrs.	49 flights

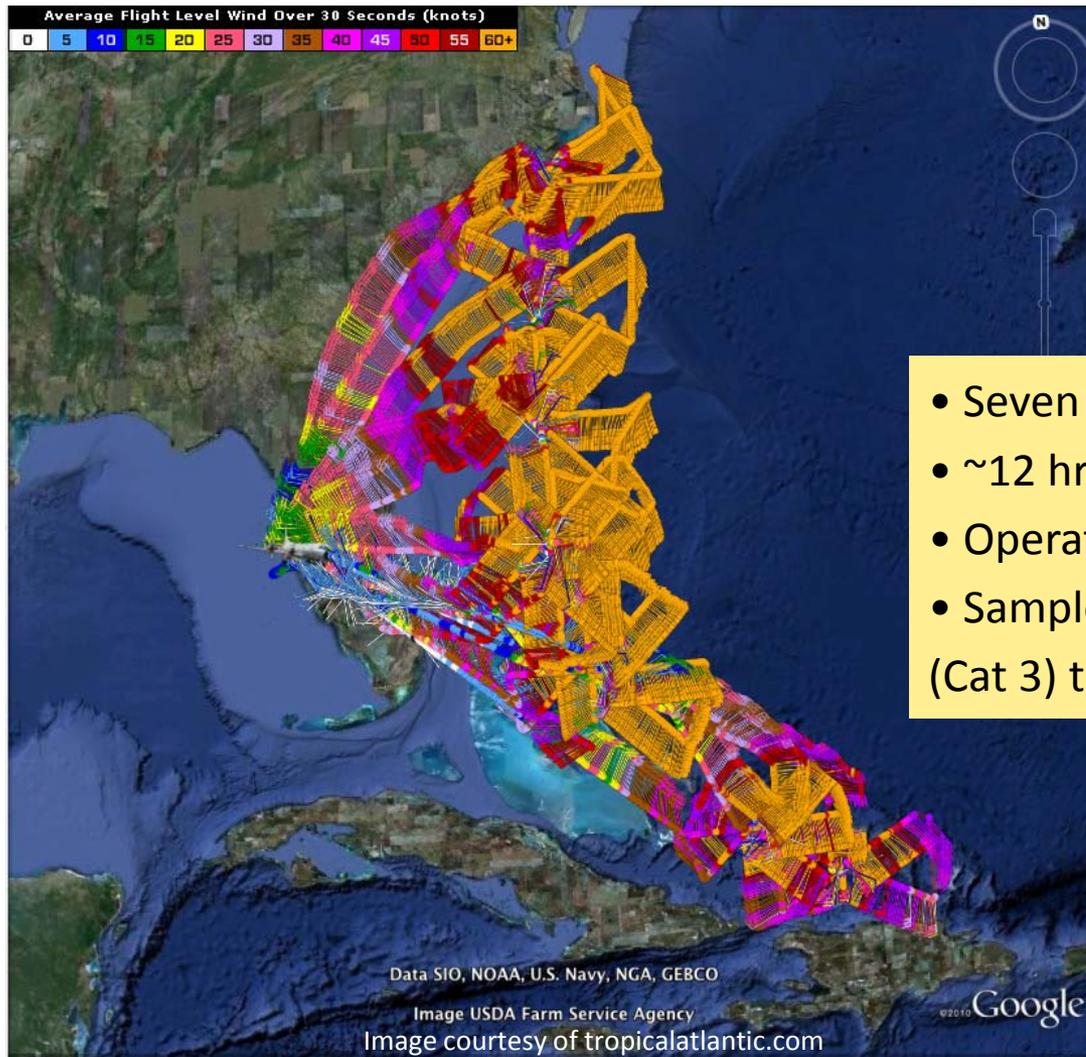


Hurricane Hours Flown

FY 2006-2011



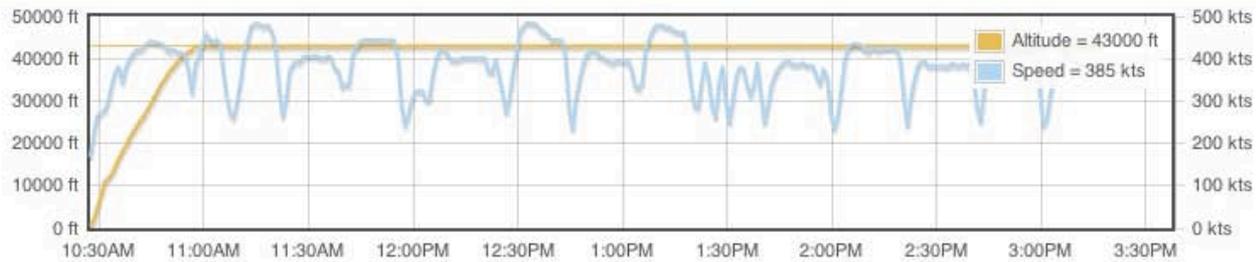
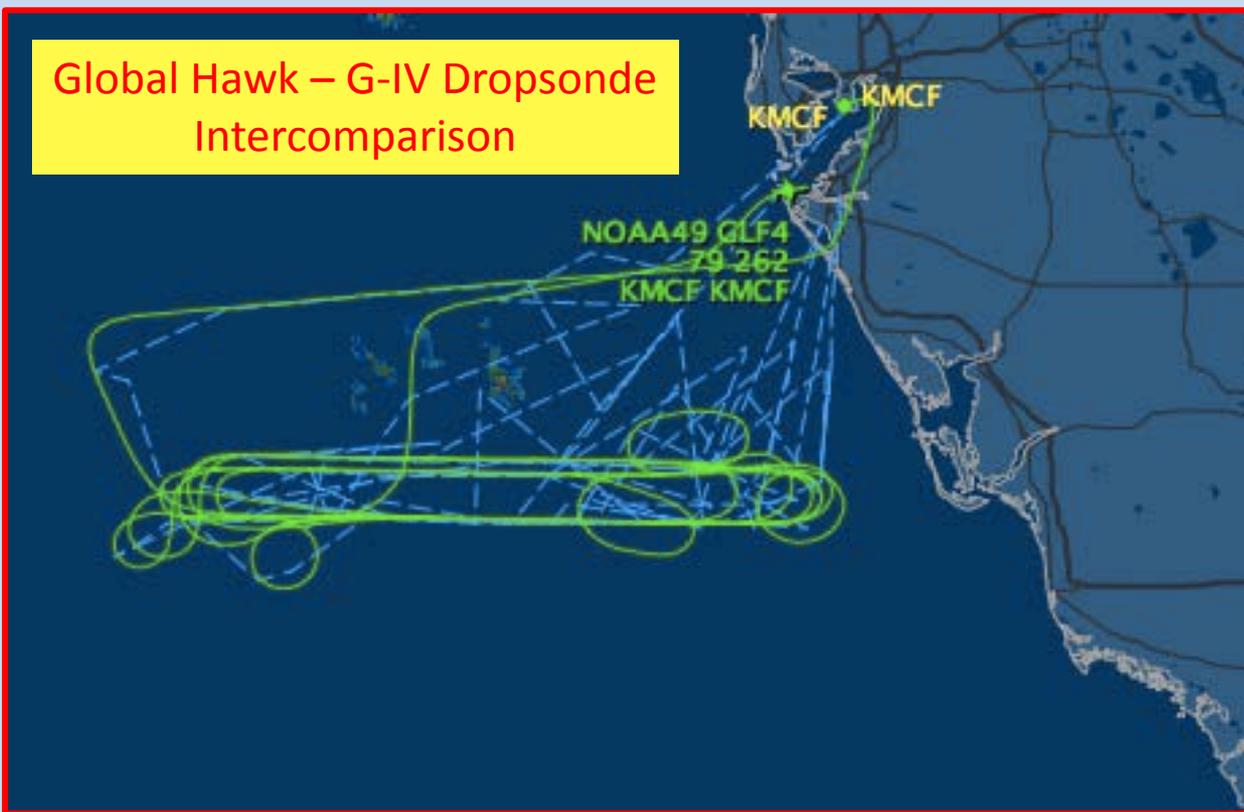
Hurricane Irene P3 coverage (Aug. 23-27, 2011)



- Seven TDR flights (1 aborted)
- ~12 hr sampling cycle
- Operated out of MacDill AFB
- Sampled Irene as a major hurricane (Cat 3) through landfall (Cat 1)

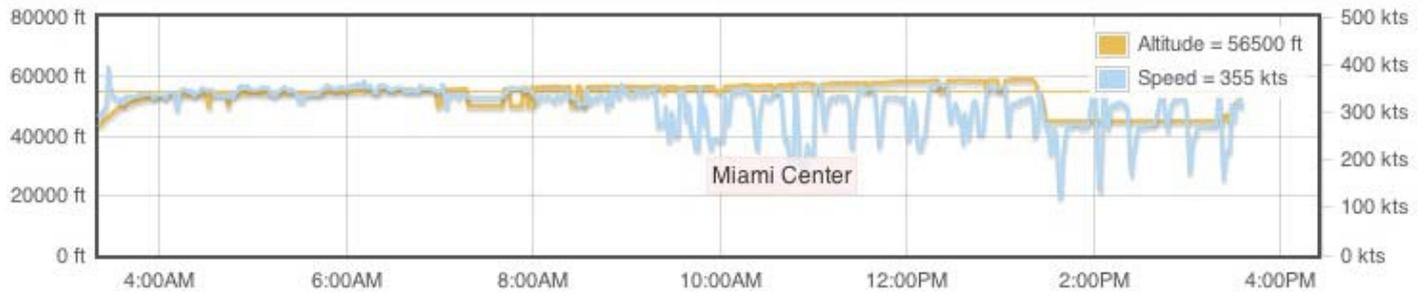


Global Hawk – G-IV Dropsonde Intercomparison

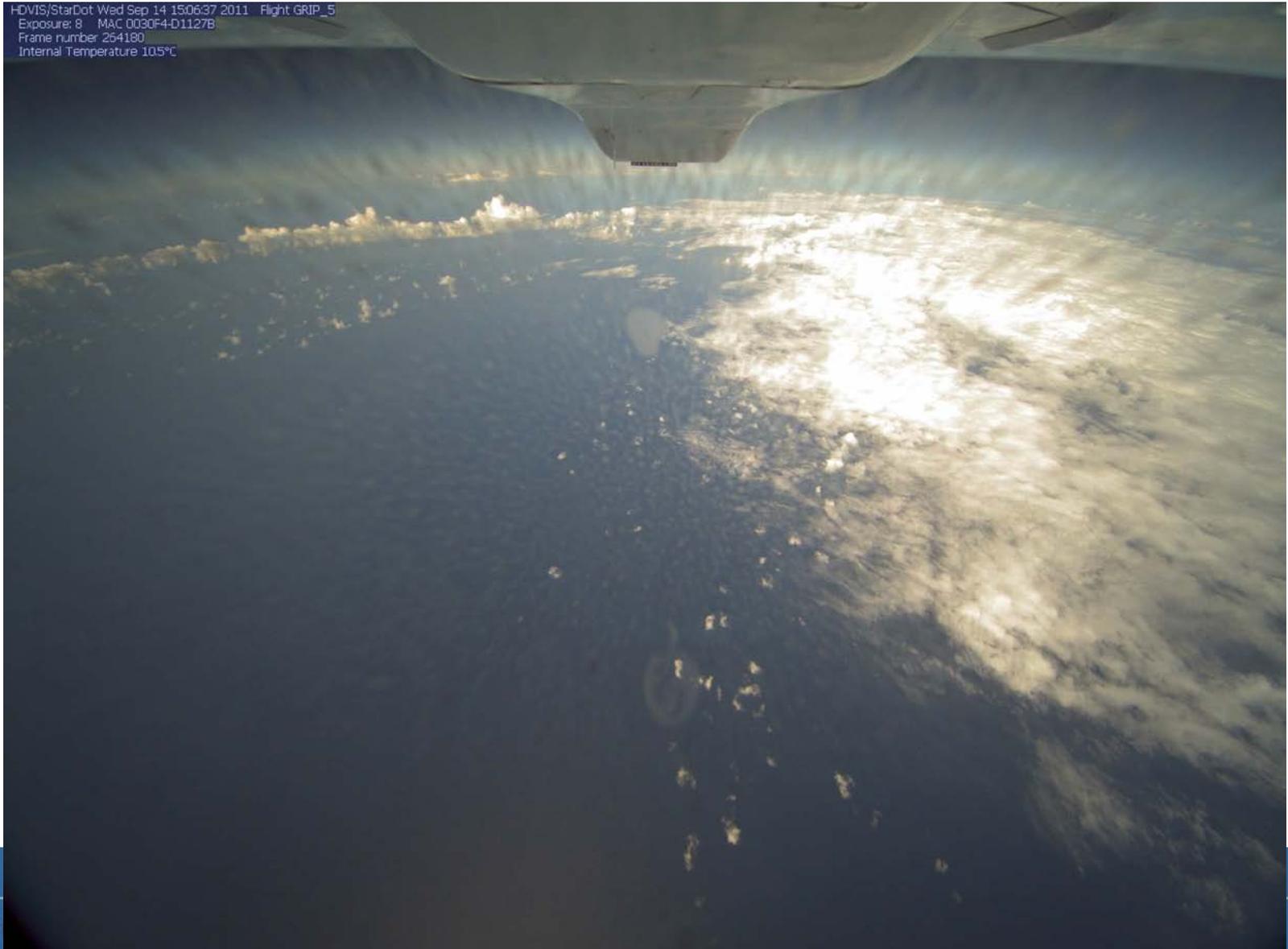


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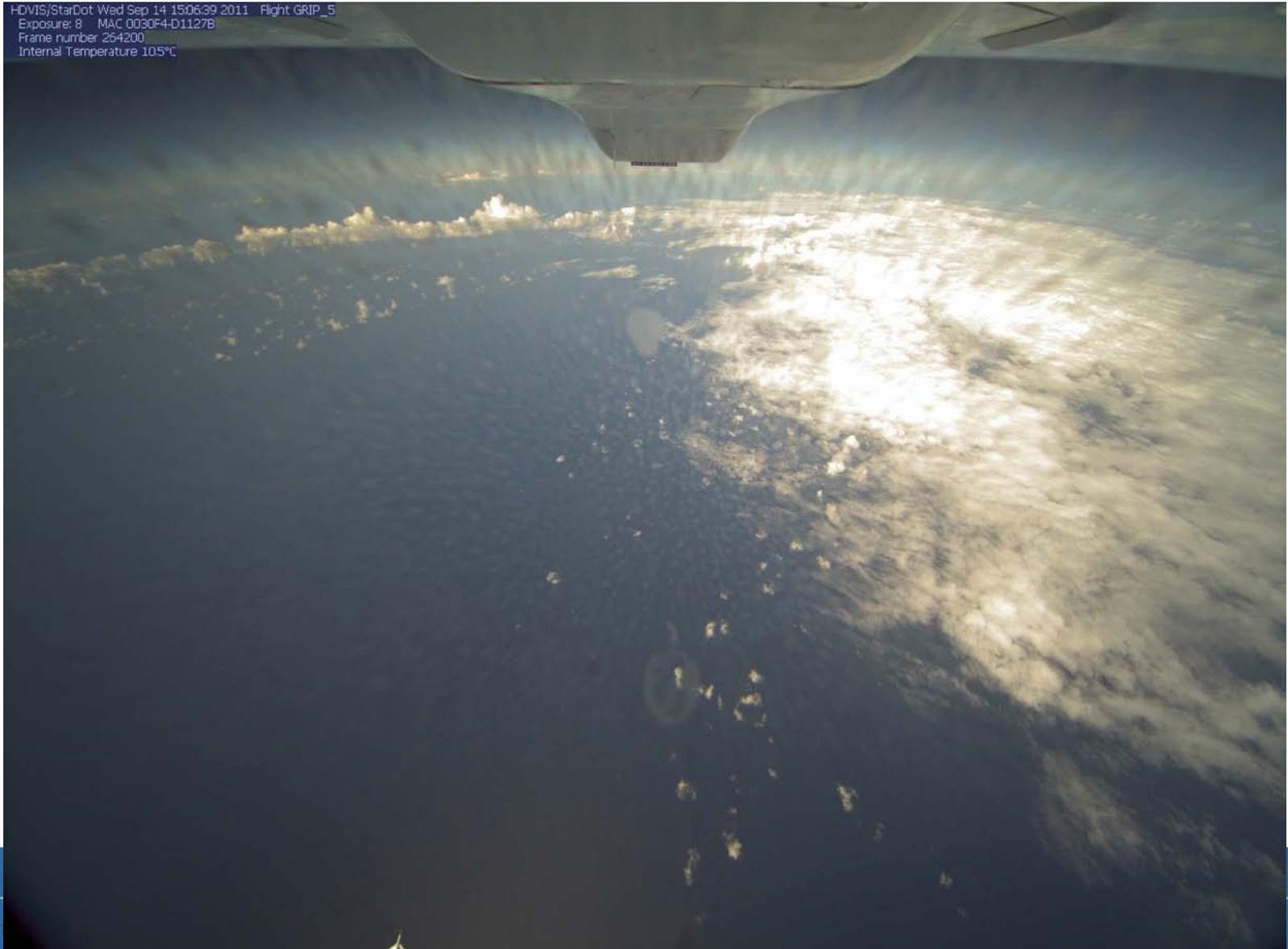
NASA872 ZZZZ
533 310
KEDW W168



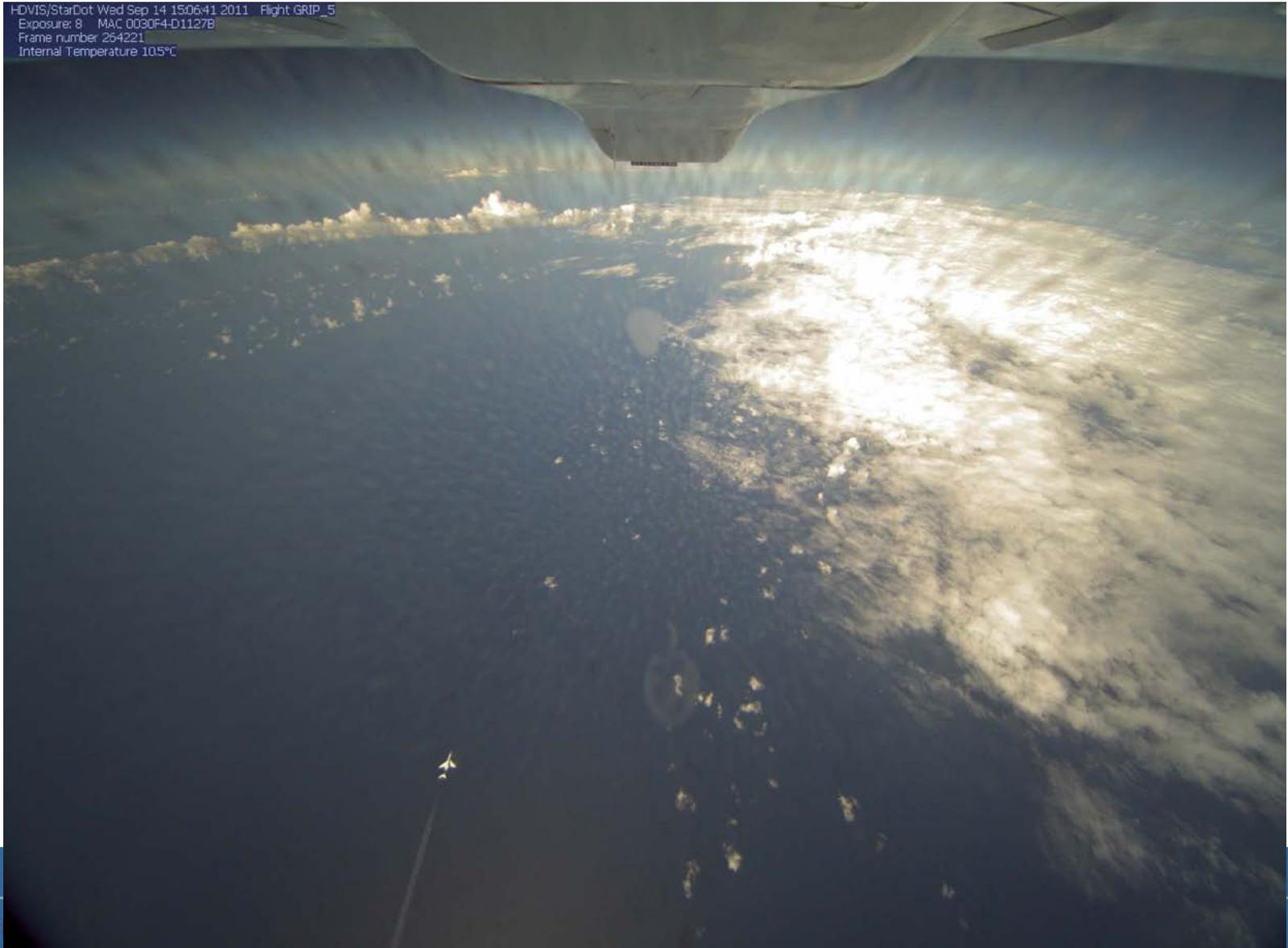
HDVis Image of NOAA G-IV Underpass



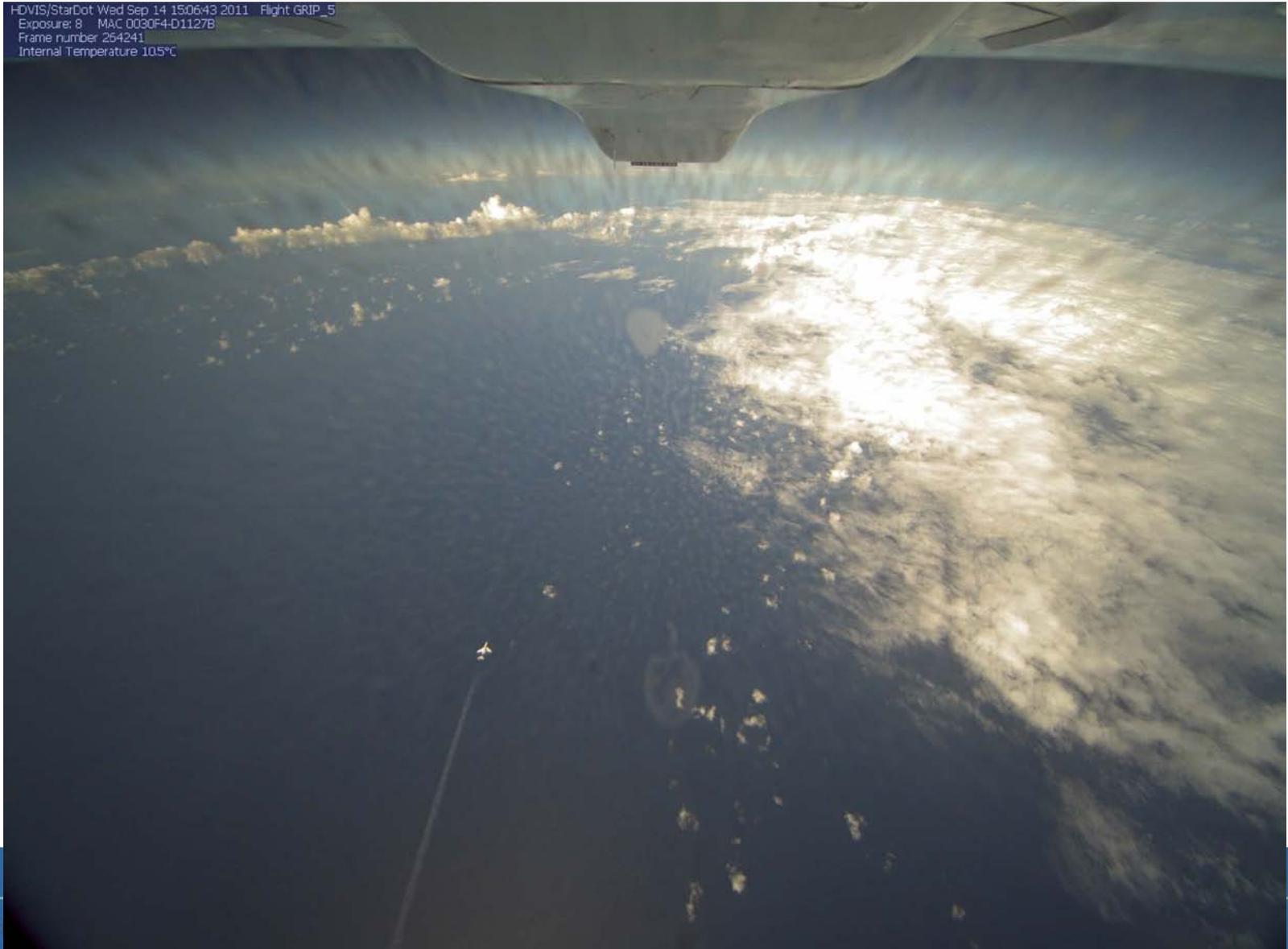
HDVis Image of NOAA G-IV Underpass



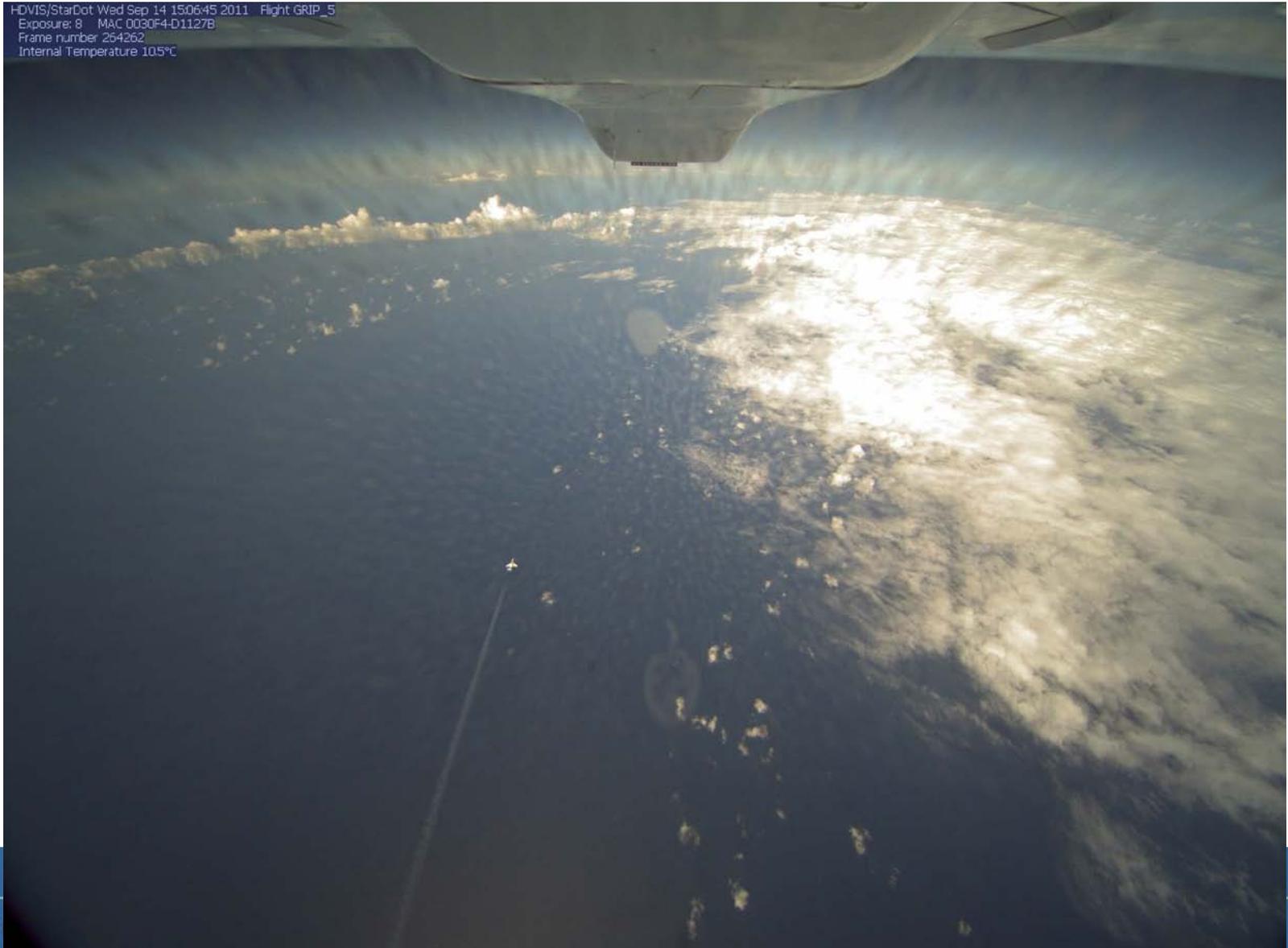
HDVis Image of NOAA G-IV Underpass



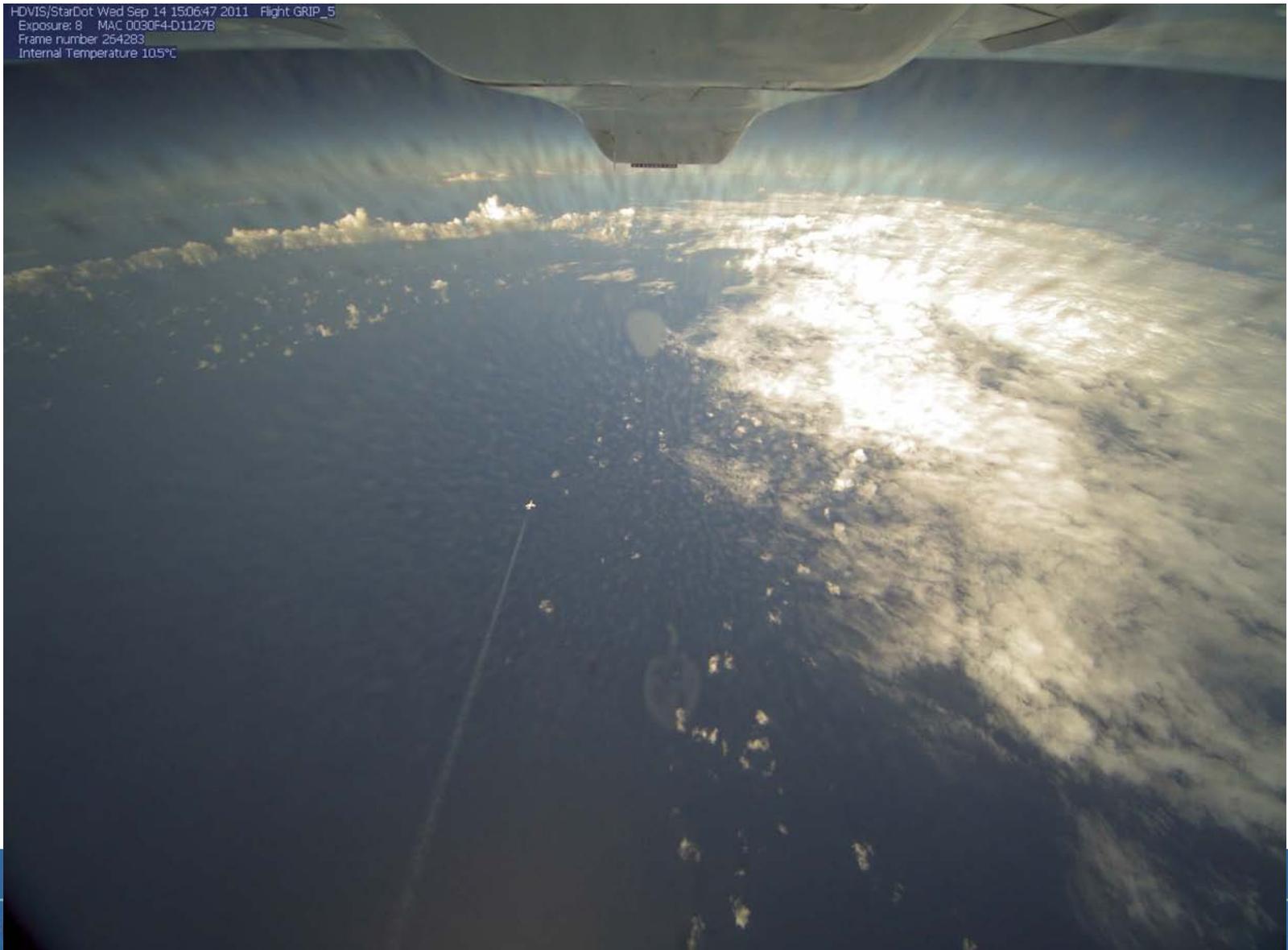
HDVis Image of NOAA G-IV Underpass



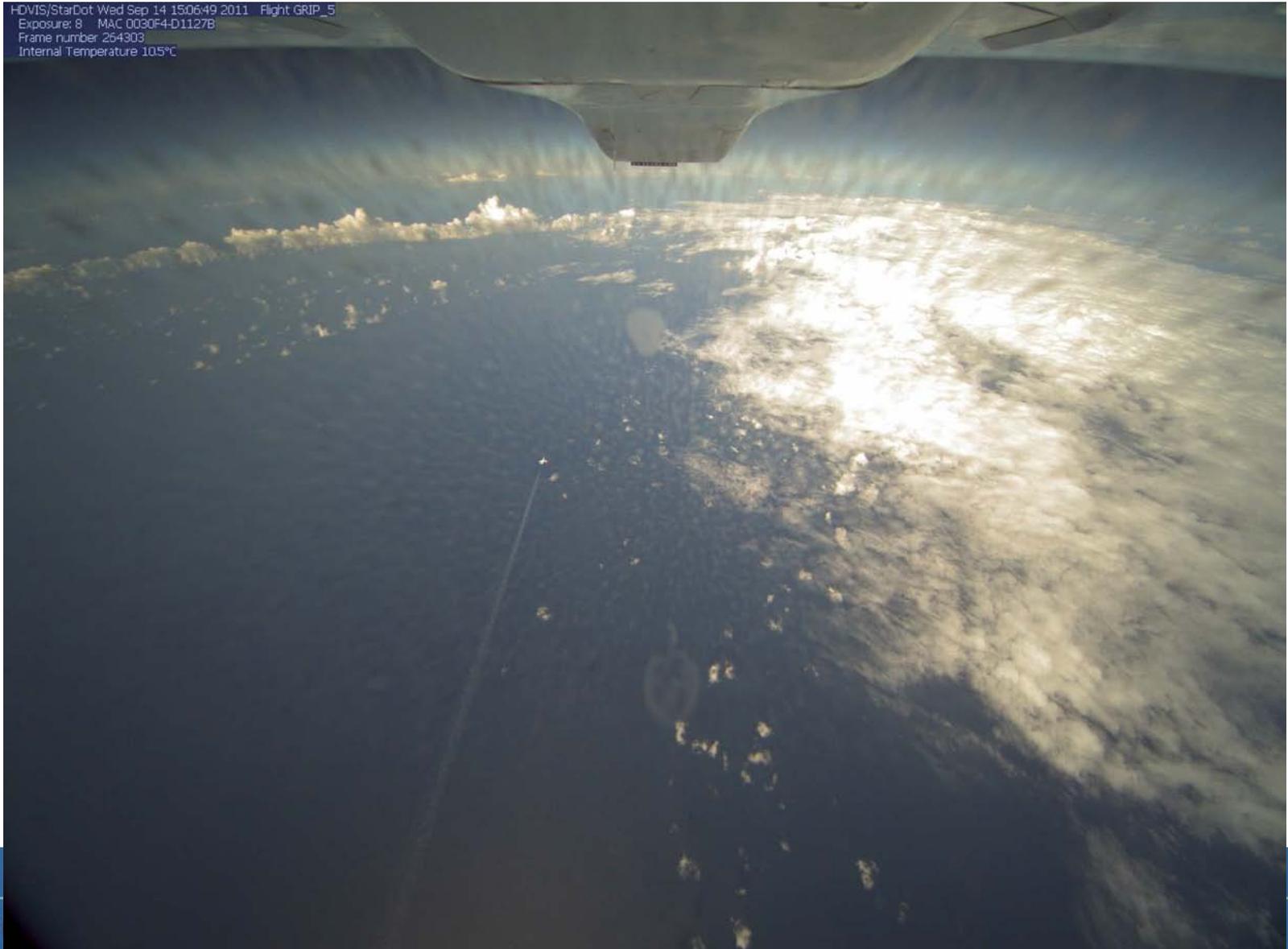
HDVis Image of NOAA G-IV Underpass



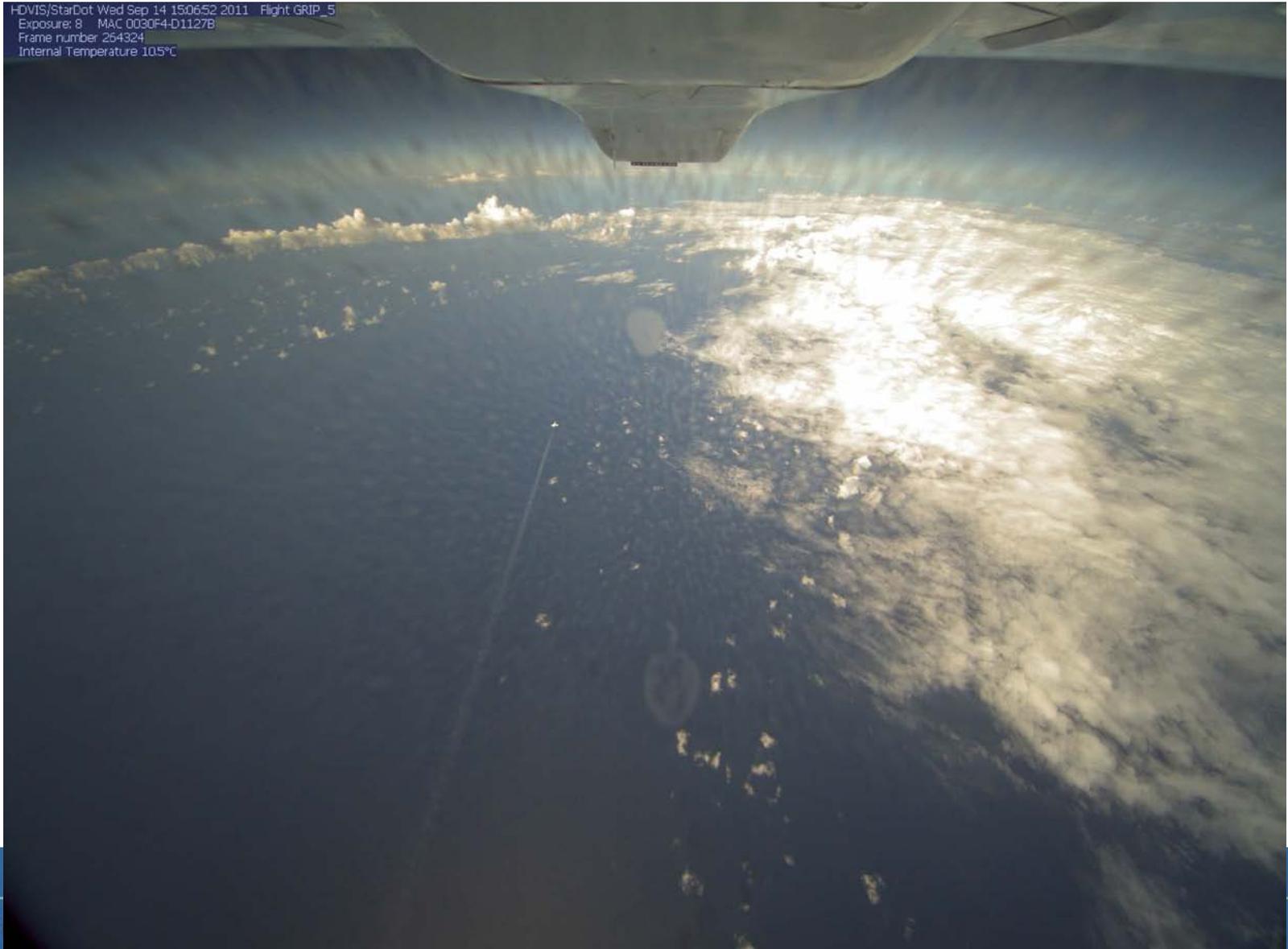
HDVis Image of NOAA G-IV Underpass



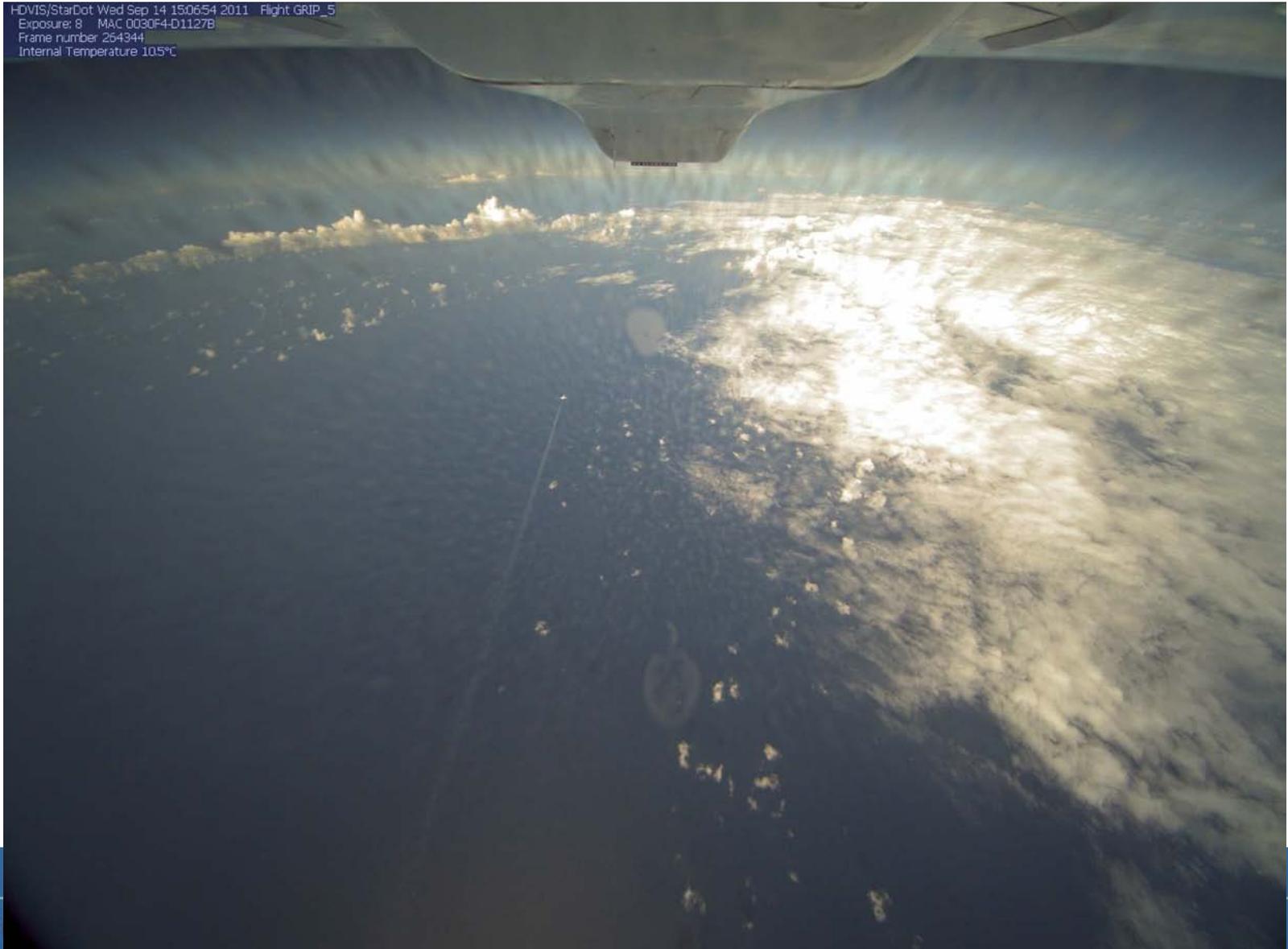
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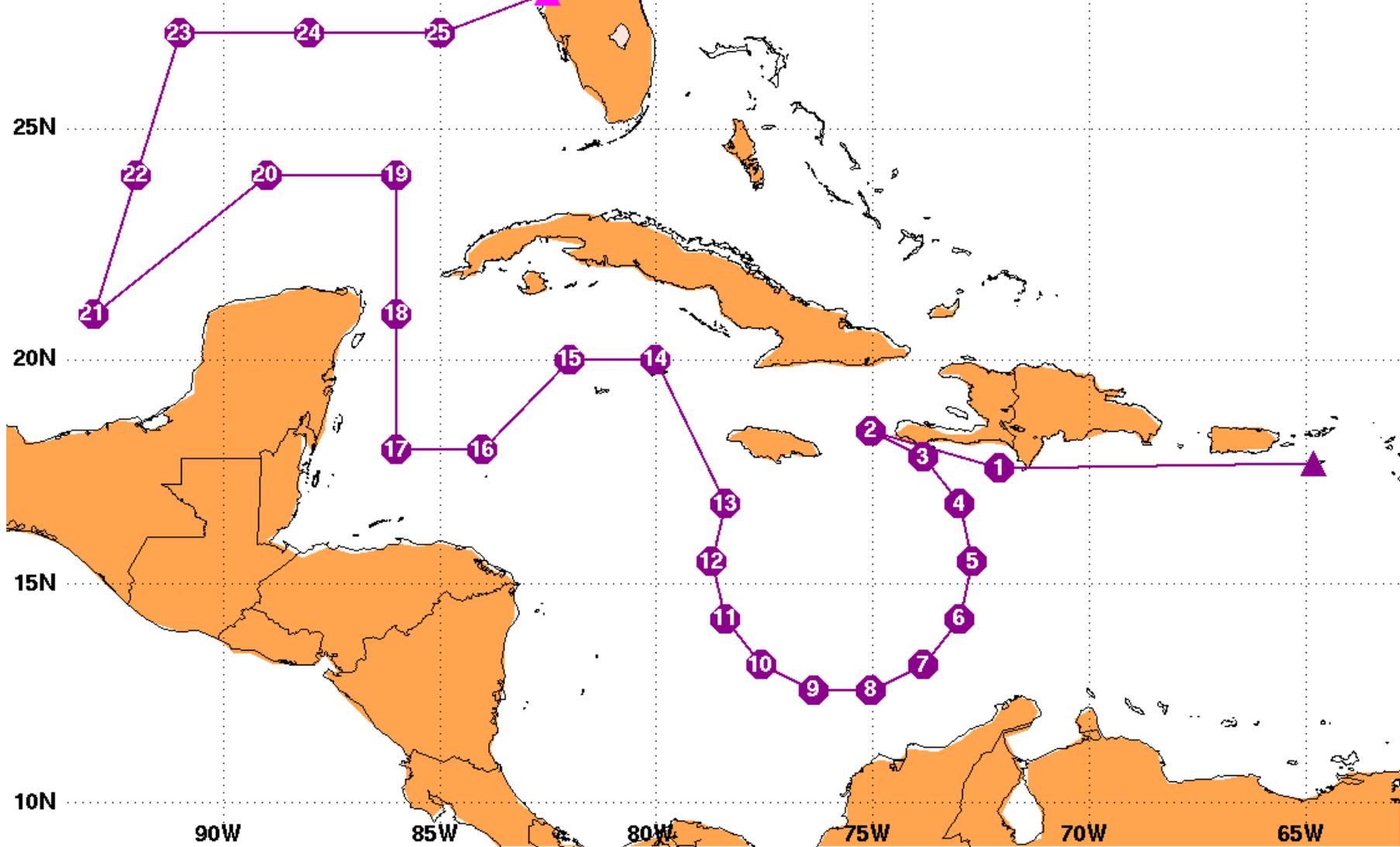


HDVis Image of NOAA G-IV Underpass



NOAA G-IV Flight Track Drop Locations for TOMAS (AL212010)

On 2010110412 the storm was centered at 15.5;-76.2



FY12 PROGRAMS



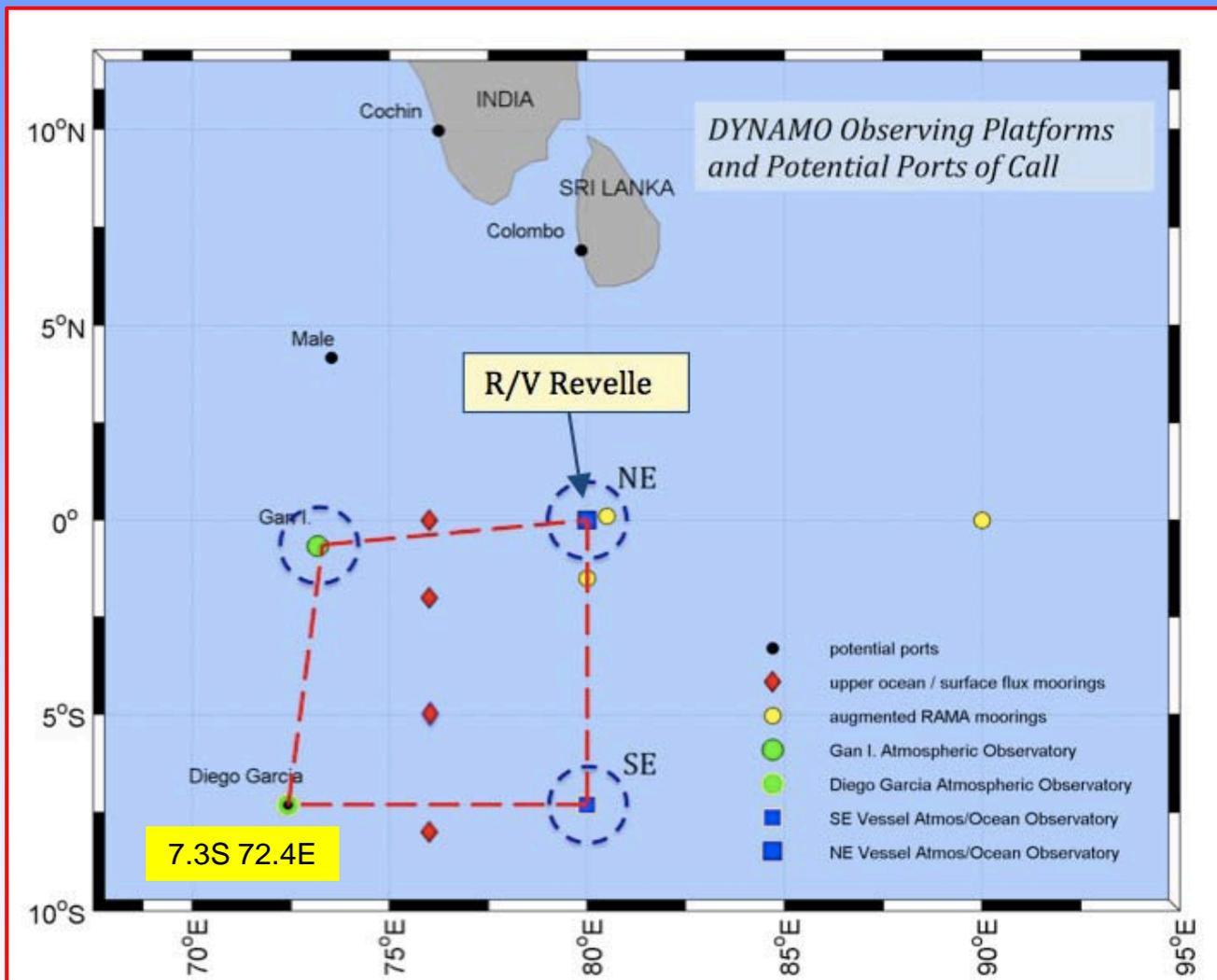
FY12 FINAL AIRCRAFT SERVICES ALLOCATION

Line	Program	2/27/12 Revision
NWS	<u>Hurr Surv</u> , TDR Ops (G-IV)	190
NWS	<u>Hurr Reco</u> (P-3)	0
NWS	Winter Storms (G-IV)	137
NWS	Water Resources (Turbo Cmdr)	455
NWS	Water Resources (Twin Otter/Shrike)	355
OAR	<u>Hurr Rsch</u> , TDR Ops (P-3)	115
NESDIS	Ocean Winds Winter (P-3)	50
NESDIS	Ocean Winds Summer (P-3)	Piggy-back
NOS	Coastal Mapping (King Air)	350
TOTAL		1,652
		\$3.11M

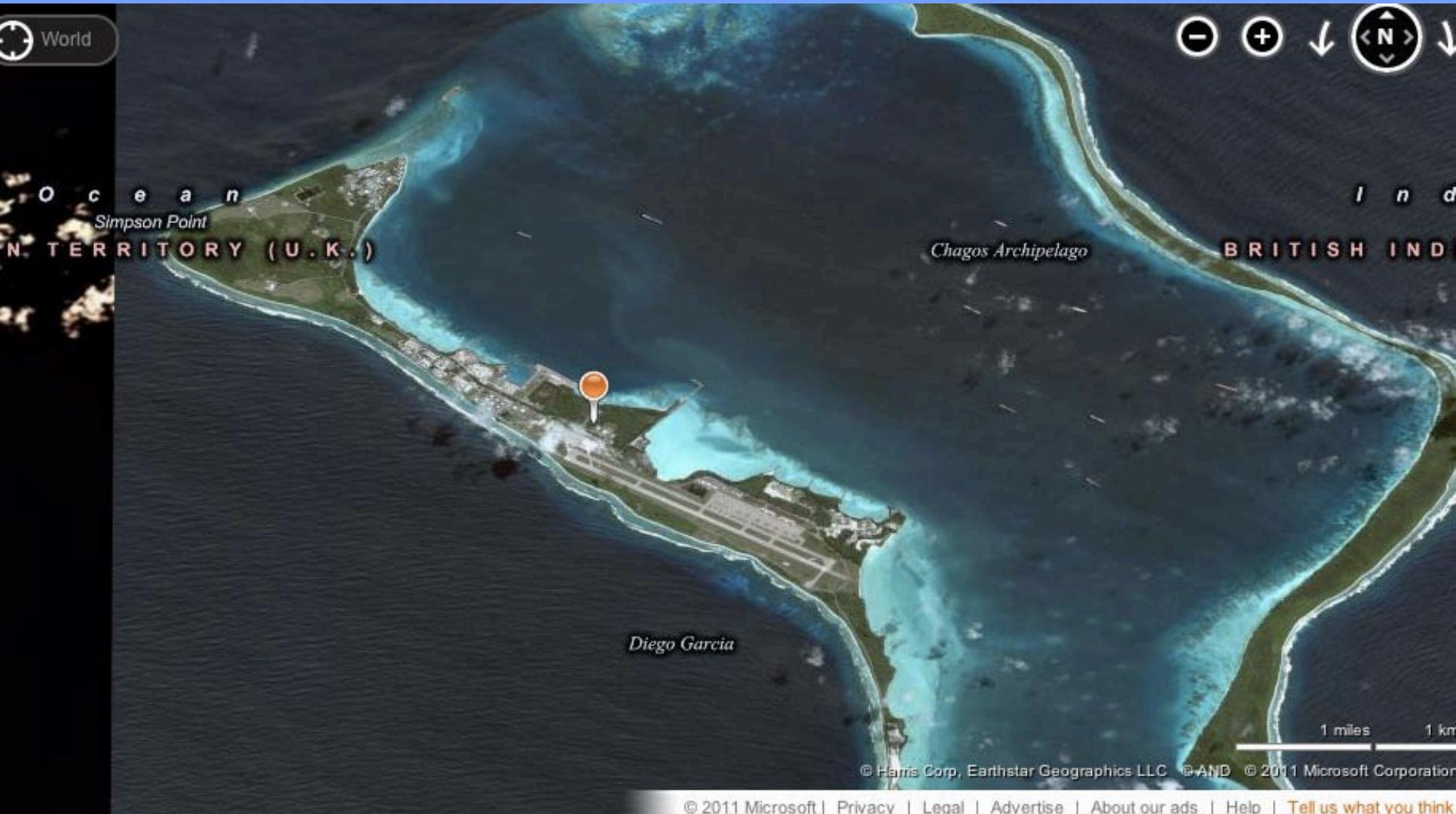
FY12 Program Funded Allocation Changes

Line	Program	Hours
NWS	Hurricane Forecast Improvement Program (P-3 and G-IV)	68
NMFS	AK Harbor Seals (Twin Otter)	195
NMFS	AK LOSI Ice Seals (Twin Otter)	150
NMFS	AK Steller Sea Lion (Twin Otter)	100
NMFS	Gray Whales (Twin Otter)	60
NMFS	Leatherback Turtles (Twin Otter)	70
NMFS	Loggerhead Turtles (Twin Otter)	95
NMFS	Northeast AMAPPS (Twin Otter)	110
NMFS	Northeast Right Whales (Twin Otter)	231
NMFS	Southeast Right Whales (Twin Otter)	300
NMFS	Southeast AMAPPS (Twin Otter)	120
NMFS	DWH NRDA – Fall and Winter (Twin Otter)	320 (R)
NMFS	WA/OR Harbor Porpoise (Twin Otter)	70
NOS	Coastal Mapping (King Air)	125
NOS	RSD Lidar Test (Twin Otter)	35
NOS	GRAV-D (Jet Prop)	100
NOS	West Coast Living Marine Resources (Twin Otter)	30
OAR	DYNAMO (P-3)	175
N/A	Riverhead Foundation (Twin Otter)	135 (R)
	TOTAL	2,489

DYNAMO



DYNAMO – Diego Garcia



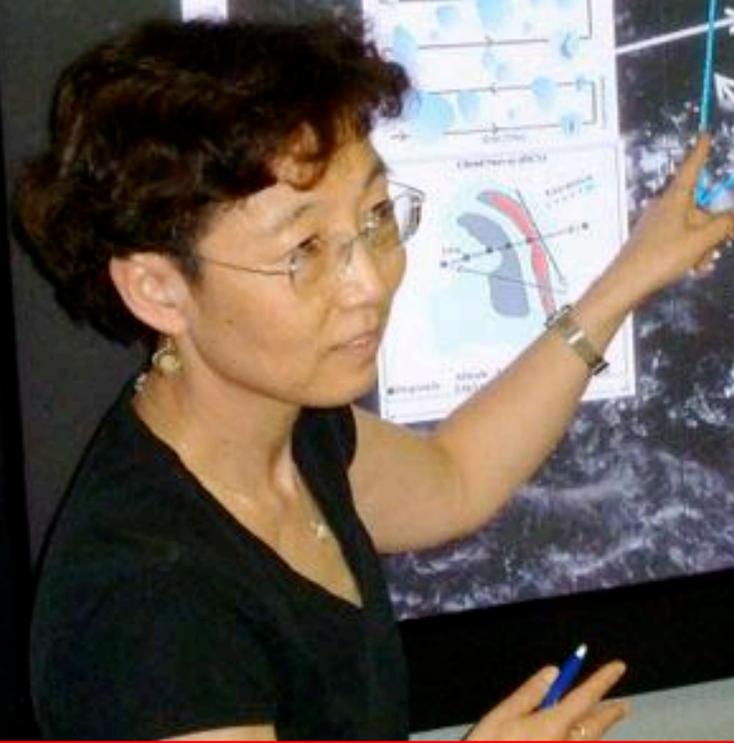
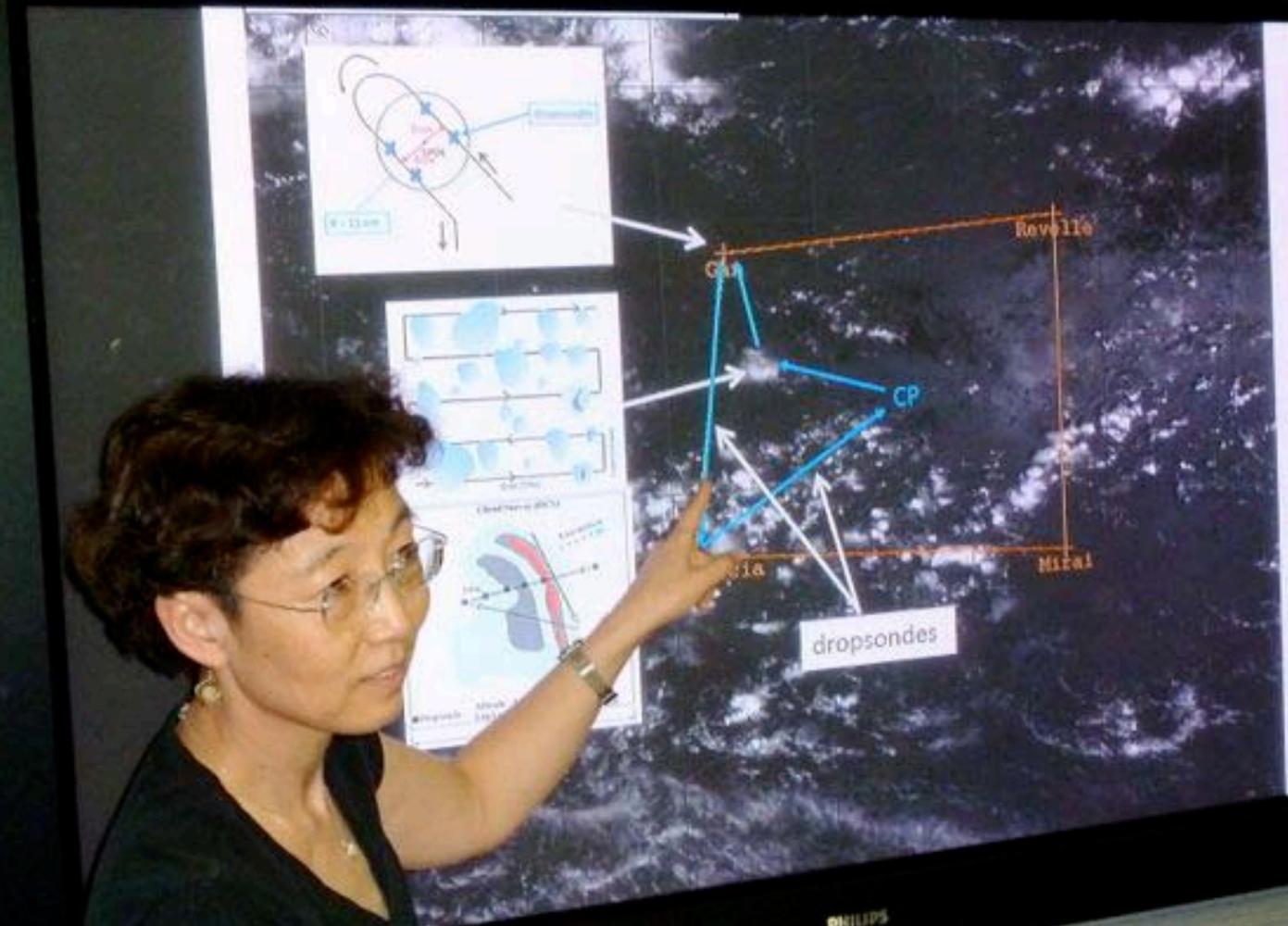


Office of Marine and Aviation Operations



DEPT. OF COMMERCE

N43RF



PHILIPS



MAN. BEL
AUX PWR
UNIT
EXTINGUISHER

DUCT
LAMP TEST
MASTER
RESET

LANDING GEAR POSITION
UP UP UP
LEFT NOSE RIGHT

RADIO CALL
N43 RF





Office of Marine and Aviation Operations

ISSUES

PROGRAM BUDGETS



FY12 Base Funded Flight Hour Requests

Line	Program	Hours	Total Cost
NWS	Hurr Surv, TDR Ops (G-IV)	400	\$1,321,536
NWS/OAR	Hurr Rsch/Reco, TDR Ops (P-3)	700	\$3,744,370
NWS	Winter Storms (G-IV)	400	\$1,764,136
NWS	Water Resources (Turbo Cmdr)	675	\$468,848
NWS	Water Resources (Twin Otter/Shrike)	500	\$305,790
NESDIS	Ocean Winds Winter (P-3)	90	\$627,874
NESDIS	Ocean Winds Summer (P-3)	60	\$320,946
NOS	Coastal Mapping (King Air)	400	\$417,152
	TOTAL	3,225	\$8,970,652



FY12 Base Funded Flight Hours

Line	Program	Request	9/19/11 Allocation	12/19/11 Allocation
NWS	Hurr Surv, TDR Ops (G-IV)	400	195	140
NWS/OAR	Hurr Rsch/Reco, TDR Ops (P-3)	700	150	0
NWS	Winter Storms (G-IV)	400	250	105
NWS	Water Resources (Turbo Cmdr)	675	500	425
NWS	Water Resources (Twin Otter/Shrike)	500	300	210
OAR	Hurr Rsch (P-3)	-	-	50
NESDIS	Ocean Winds Winter (P-3)	90	55	50
NESDIS	Ocean Winds Summer (P-3)	60	Piggy-back	Piggy-back
NOS	Coastal Mapping (King Air)	400	350	350
		3,225	1,800	1330
	TOTAL	\$8.97M	\$3.83M	\$2.33M

FY12 Base Funded Allocation

Line	Program	12/19/11 Allocation	change	2/27/12 Revision
NWS	Hurr Surv, TDR Ops (G-IV)	140	+50	190
NWS	Hurr Reco (P-3)	0	0	0
NWS	Winter Storms (G-IV)	105	+32	137
NWS	Water Resources (Turbo Cmdr)	425	+30	455
NWS	Water Resources (Twin Otter/Shrike)	210	+145	355
OAR	Hurr Rsch, TDR Ops (P-3)	50	+65	115
NESDIS	Ocean Winds Winter (P-3)	50	0	50
NESDIS	Ocean Winds Summer (P-3)	Piggy-back	0	Piggy-back
NOS	Coastal Mapping (King Air)	350	0	350
TOTAL		1,330	322	1,652
		\$2.33M	\$0.775M	\$3.11M

ISSUES

INSTRUMENTATION



Instrumentation Issues

1. G-IV Tail Doppler Radar





Instrumentation Issues

1. G-IV Tail Doppler Radar
2. P-3 RVP-8 Radar Upgrade





N42RF

Instrumentation Issues

1. G-IV Tail Doppler Radar
2. P-3 RVP-8 Radar Upgrade
3. P-3 Data System Upgrade (AAMPS)



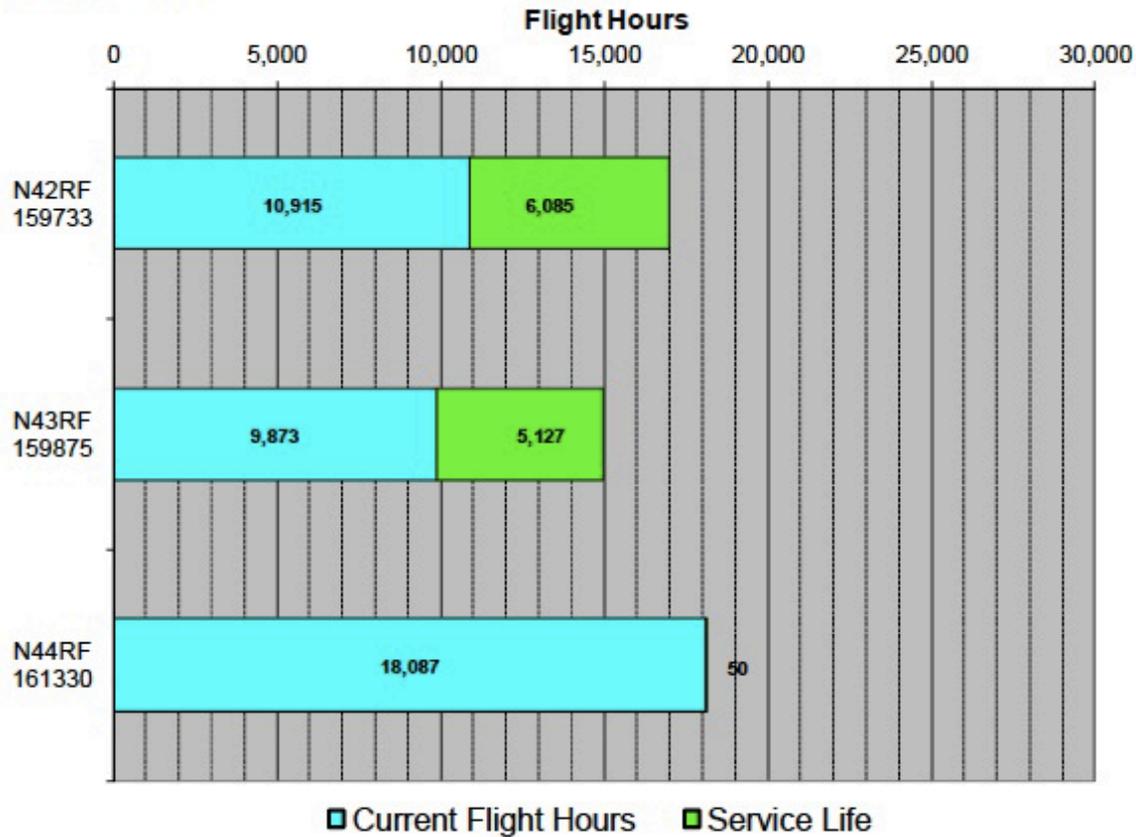
P-3 Future Life Ex[ectancy

- 1. Lockheed Martin SLAP**
- 2. Analysis of Alternatives**



LM Service Life Assessment Program (SLAP) Results

- Service Life Impacts if NOAA implements LM Maintenance Recommendations:
(PDMs and SSIs)

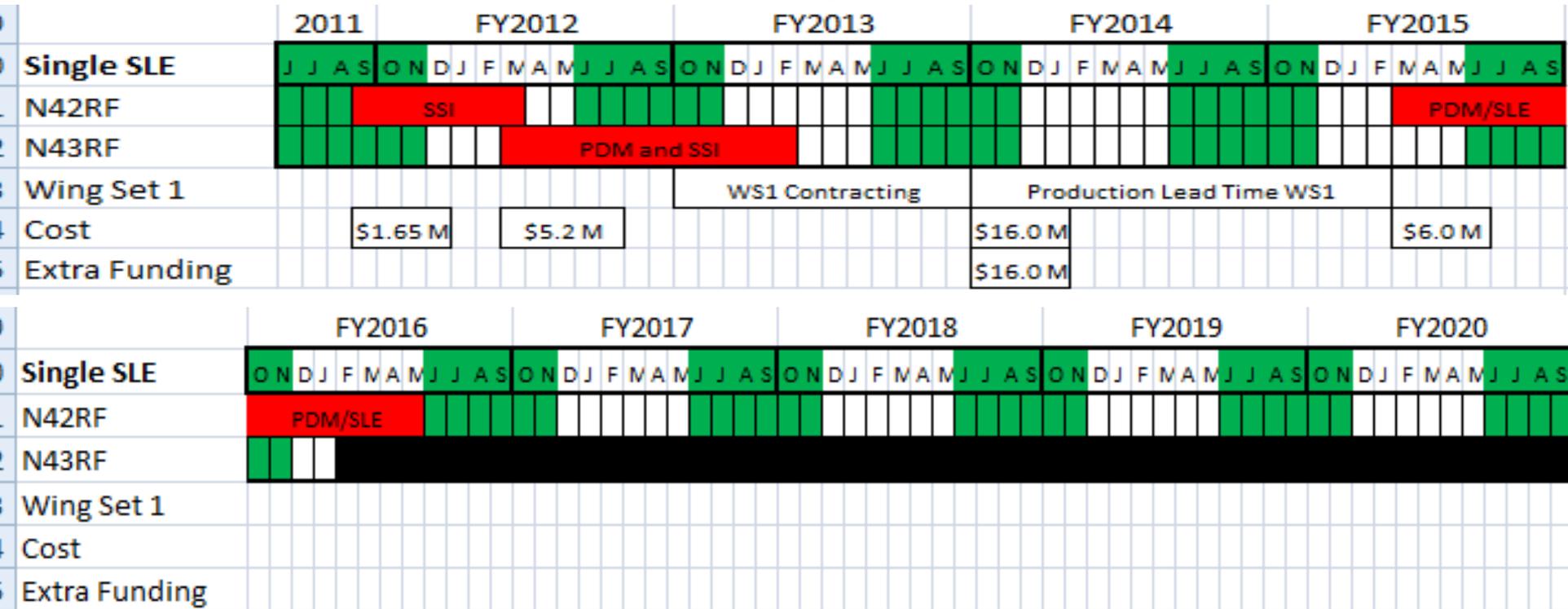


Alternatives for Meeting NOAA's Research and Reconnaissance Requirements

- Option One – Special Structural Inspections, replacement of Center Wing-box and PDMs.
- Option Two – One-time PDM/SSI to both P-3s; SLE to One
- Option Three – Service Life Extension to both P-3s
- Concurrent Activity – Replacement Platform/Technology



Option 2 One Aircraft SLE Option Timeline



Down for Inspections

Hurricane Season

End of Service Life

- N43 inducted into PDM/SSI FY2012 to allow hurricane season coverage during N42 SLE
- N42 / N43 End of Service Life 2031 / 2016
- Only 1 WP-3D available for 7 hurricane seasons (2012, 2015-2020)

Summary FY-12 Heavy Aircraft Programs and Goals

- P-3 DYNAMO Project in Indian Ocean – **completed**
- G-IV WSR operations in Hawaii and Alaska – **completion**
- P-3 Ocean Winds Winter project in Canada – **completed**
- G-IV OSAT and accept TDR from KA – **near completion**
- SSI and center wing-box installation on N42RF – **near completion**
- P-3 RVP-8 radar upgrade prior to hurricane season - **in work**
- Induct 43 into Navy FRCSE for SSI and PDM.
- Plan for overhaul of G-IV engines in FY13



ICCAGRA Spring 2012

QUESTIONS?



Office of Marine and Aviation Operations