A graphic element for the HFIP logo, consisting of several concentric, slightly curved lines in grey, with a red stylized wave or 'S' shape in the center.

NOAA
HURRICANE FORECAST IMPROVEMENT PROJECT

HFIP Computing

Fred Toepfer,
HFIP Annual Meeting
November 9, 2017



HFIP Computing Background



- **Upside**
 - Congress has provided dedicated HPC to support HFIP efforts
 - Through CIO majority of funds used to build and sustain Jet in Boulder
 - The availability of this computing has been critical to the success of HFIP
- **Downside**
 - Budget reduced to 2M (Approximate Jet O&M costs) in FY17
 - Budget reduced to zero in FY18 Presidents budget
 - Jet will be turned off November 30, 2017 without other funding arrangements being in place



R&D HPC

Configuration of Jet System

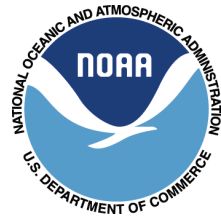


	Install Date	Total Cores	Performance (Tflops)	Storage (TB)
Phase 1 (Njet)	Aug 2009	3184	35.6	350
Phase 2 (Tjet)	Aug 2010	10600	113.0	416
Phase 3 (Ujet)	Oct 2011	16648	182.0	1166
Phase 4 (Sjet)	Aug 2012	22088	272.0	1613
Phase 5 (Vjet)	Aug 2014	24456	340.26	3261
Phase 6 (Xjet)	Oct 2015	32520	576	3773
Phase 7 (Xjet+) expansion	Aug 2016	45388	820	4400





Going Forward



- NOAA CIO tried to ask for funds in FY18 to sustain Jet
 - HFIP retains priority use of Jet, if successful, through the HPC allocation board
 - Success uncertain as recap of GAIA seems to be the priority
 - Will be forced to compete for Theia resources if not successful
- Good News! Continuity of HFIP funds for Jet is in House and Senate marks
 - Portends well for appropriation; however good for 1 year only unless Congress repeats next year
 - Will maintain Jet availability through FY18 hurricane season.
- HPC Request in possible Harvey/Irma/Maria Supplemental could have a huge, but as yet unknown impact on all NOAA HPC including Jet as well as any dedicated HFIP computing resources.