

# Post-Operations Planning: NASA Herschel Science Center

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# NHSC Objectives “Post-Ops”

- Primary responsibility of NHSC will continue to be support of US community on Herschel data
  - NHSC will continue to make any resources available to all Herschel users
- NHSC will continue to participate in Herschel Science Ground System activities, extending existing collaborations and tasks
  - NHSC Staff will continue to work closely with ICCs and HSC

## **User Support: Shifting from Observer to Archival User**

- **Community Support**

- Continued support of workshops/webinars/data schools with transition to archival products support, assistance with interpretation of data/artifacts/known effects and reprocessing tips
- Keep users informed about calibration updates and reprocessing
- US Helpdesk and support of ESA helpdesk will continue
- Continued support of remote access (large memory) virtual machines for heavy, user-specific reprocessing tasks
- Continue science advocacy
- EPO support

- **Archive Support**

Test archive interfaces and content (both HSA and IRSA interfaces)  
Provide support on final archival products (with HSA)  
Help US users provide advanced products for ingest to HSA

# Main Deliverables

(excluding user support activities)

- Links from IRSA to HSA, to enable searching for Herschel data in conjunction of IRSA data sets: Spitzer, WISE, 2MASS, IRAS
  - Prototype launched 2012
  - <http://irsa.ipac.caltech.edu/Missions/herschel.html>
- Final configuration of Herschel mission pages on IPAC websites
  - High-level summary pointing to the HSA documentation
  - Including all NHSC contributed material and links
- NHSC contributions to Lessons Learned
- Close-out and Summary of NASA DP Funding Activities

# Schedule

- The HSC is coordinating a master schedule for all centers and this will be in place soon
- Estimates are based on current (late Aug 2012) HSC and ICCs milestones, using 5-year and 3-year horizons:
  - End of Cryo Operations March 2013
  - Final ICC Deliveries March 2016
  - Final HSC Deliveries March 2018
- Corresponding set of NHSC milestones follows

# Schedule

## **TASKS** and DELIVERABLES TIED TO NHSC AND MISSION MILESTONES

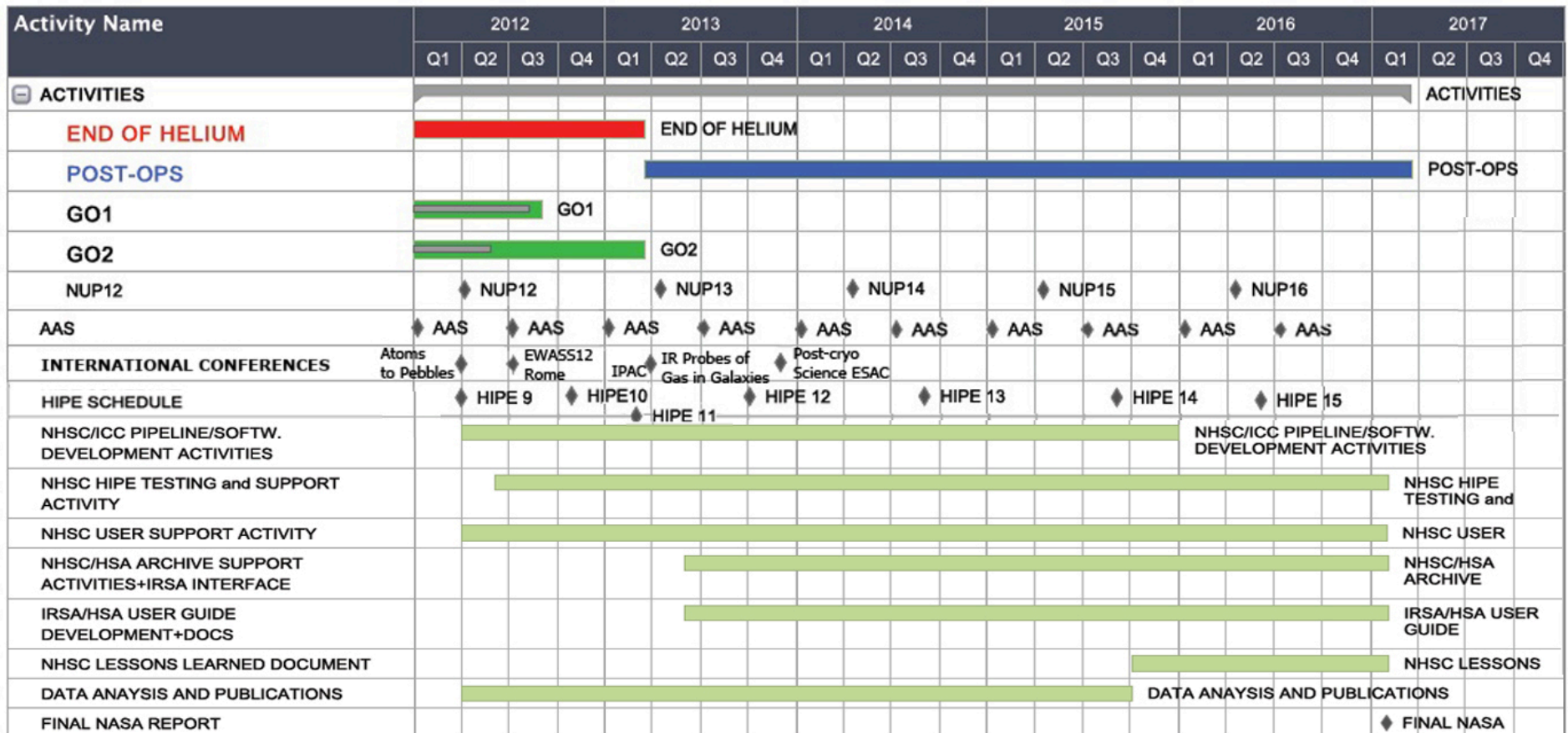
Liaison Scientist ends deployment at ESA-HSC	Mar-2013
<i>User Support tasks shifting from observer to archival support throughout post-ops</i>	
Begin Ramp-down of software development at NHSC	Mar-2013
End Software development at NHSC	Mar-2015
End Software maintenance at NHSC (with ICC activity ending)	Mar-2016
Users Guide to Herschel data and services through IRSA interface	Interim Jan-2015 Final Jul-2017
NHSC Lessons Learned Document	Interim jan 2016 Final Jun 2017
Final Report to NASA HQ on NHSC	Sept-2017

## **TASKS** AND DELIVERABLES TIED TO ICC AND HSC MILESTONES

<b>HIPE (intermediate) ver.10-14 released to users</b>	<b>from present to -mid 2015</b>
<i>Participate in development, inc. delivered modules</i>	
<i>Participate in astronomer acceptance testing, end to end testing of HIPE</i>	
<b>Herschel Science Archive intermediate versions released by HSC</b>	<b>Jun-15</b>
<i>Participate in testing and refinement of Archive content, IRSA connections</i>	
<i>Update IRSA access protocol and tools to HAS, test and deploy</i>	
Keep key information current on NHSC website, push to users at key intervals	Jun-14, Jun-15
<b>HIPE (Final) v15 released to users</b>	<b>mid-late 2016</b>
<i>Participate in final development, including delivered modules</i>	
<i>Participate in final acceptance testing of HIPE</i>	
Update information on NHSC website and push to users	mid-late 2016
<b>Final Herschel Science Archive released by HSC</b>	<b>Nov-2017</b>
<i>Participate in testing of Archive</i>	
Final update to IRSA access protocols and tools, test and deploy	sept-2017
Final update to NHSC Website, push to users	sept-2017

# Schedule (2)

## NHSC POST OPS



# Resources

- NHSC has made a request to NASA for funding at levels consistent with schedule/milestones. Request is expressed in FY, re-projected to years Post-Ops below

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FY12	FY13	FY14	FY15	FY16	FY17
21.5 FTE	21.5 FTE	17 FTE	11 FTE	5.5 FTE	3 FTE

Cryo Ops	Year 1	Year 2	Year 3	Year 4	Year 5
21.5 FTE	18 FTE	13 FTE	8 FTE	3 FTE	2 FTE*



## Resources (2)

- That NHSC request is considered a “baseline”, but is subject to revision each year
- We will write a proposal in late 2013 to NASA “Senior Review of Operating Missions”, whose results will determine funding levels for FY15-16-17
  - Most recent SR (2011): Hubble, Chandra, Spitzer, Kepler, Fermi, Planck, Swift, XMM, Suzaku