

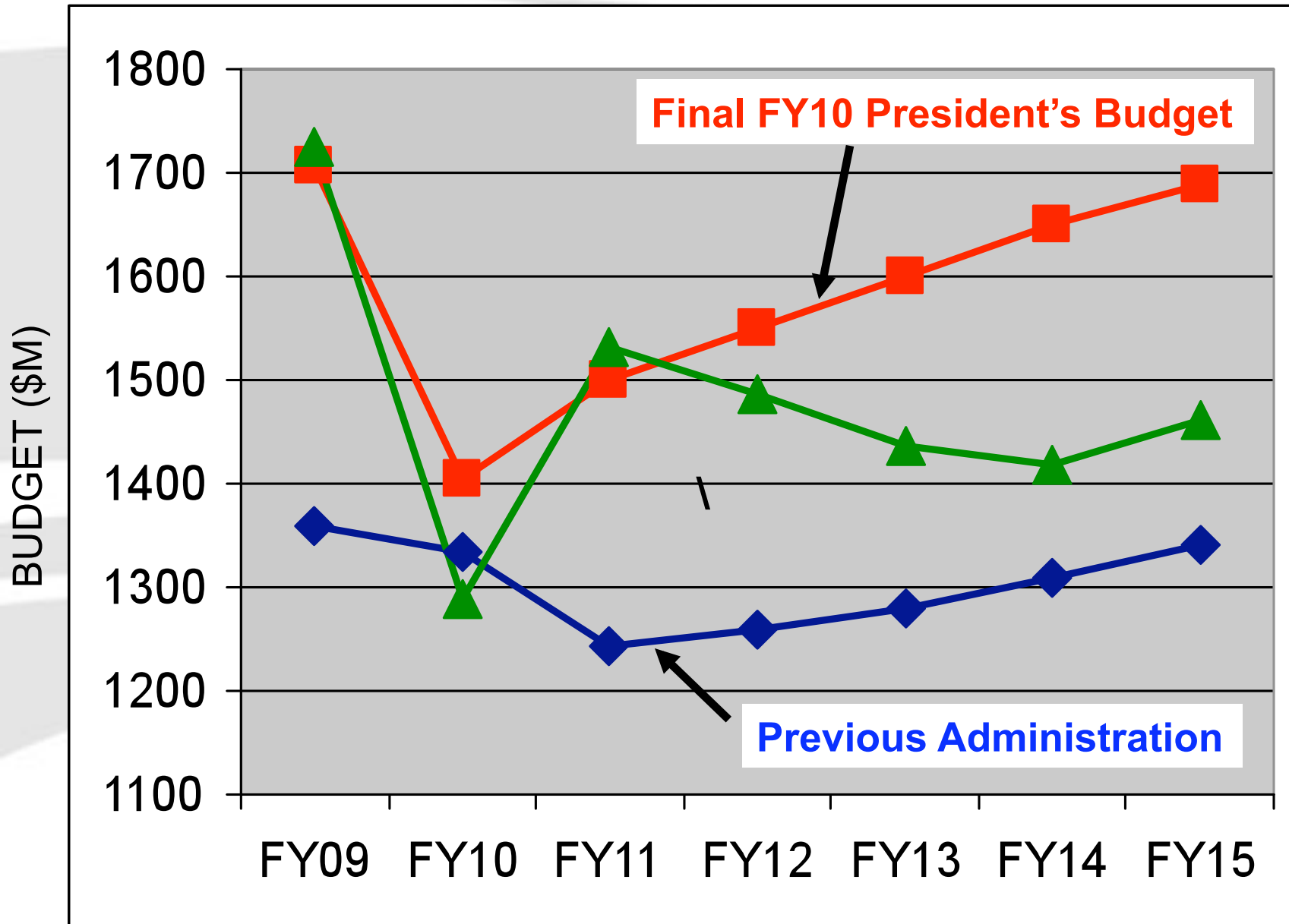
National Aeronautics and Space Administration



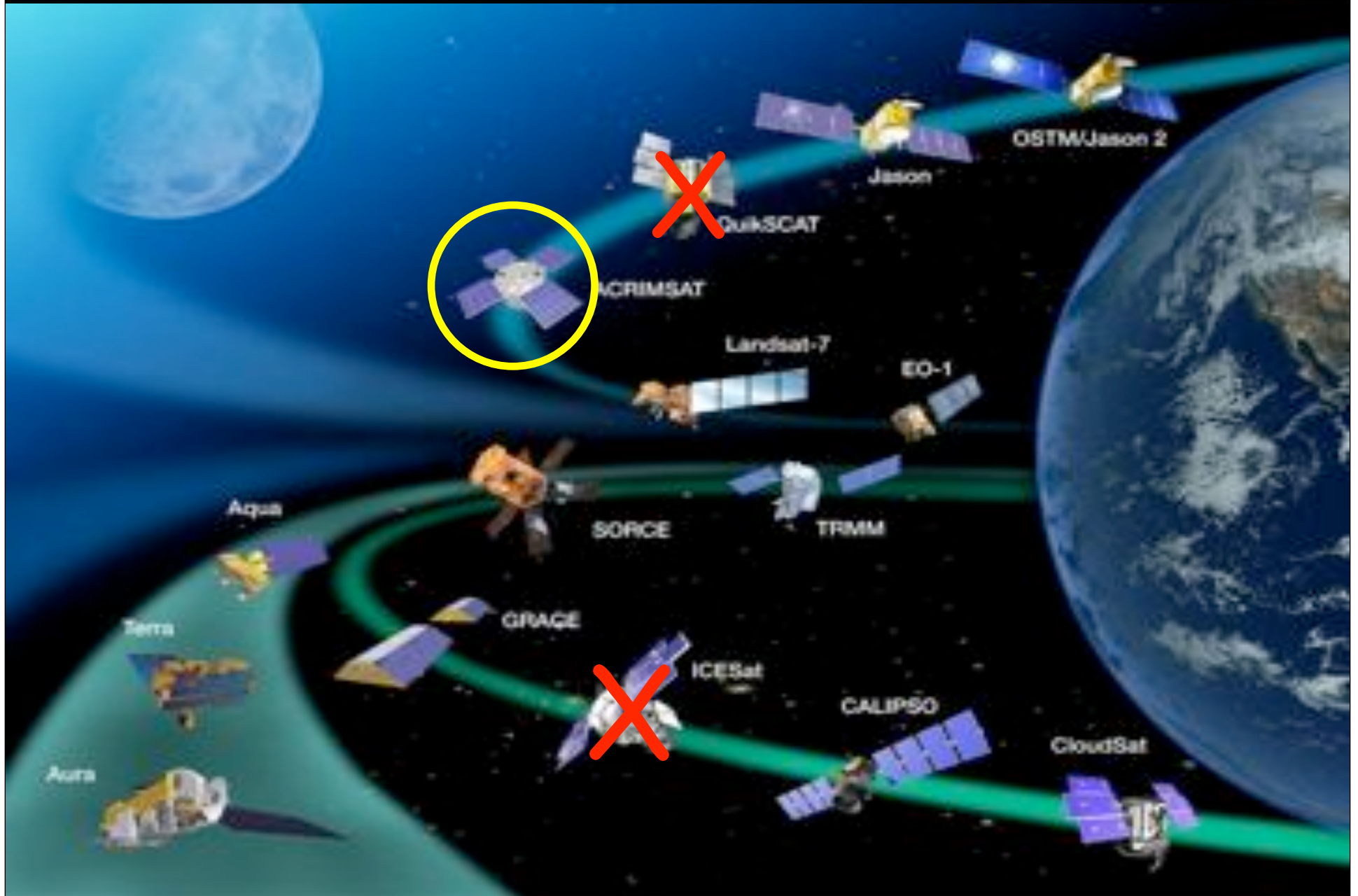
# NASA Earth Science Division MODIS/VIIRS Science Team Meeting

Michael H. Freilich  
January, 2010

# ESD BUDGET MARKS: "FINAL" FY10



# NASA Operating Missions – End of CY2009

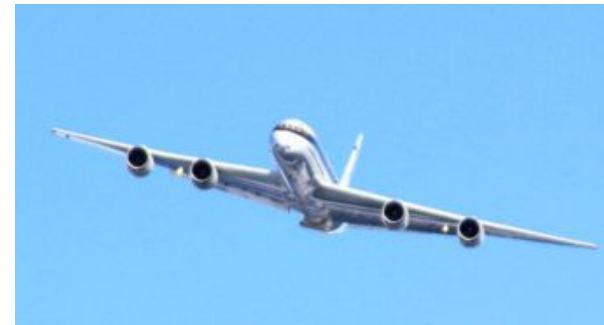
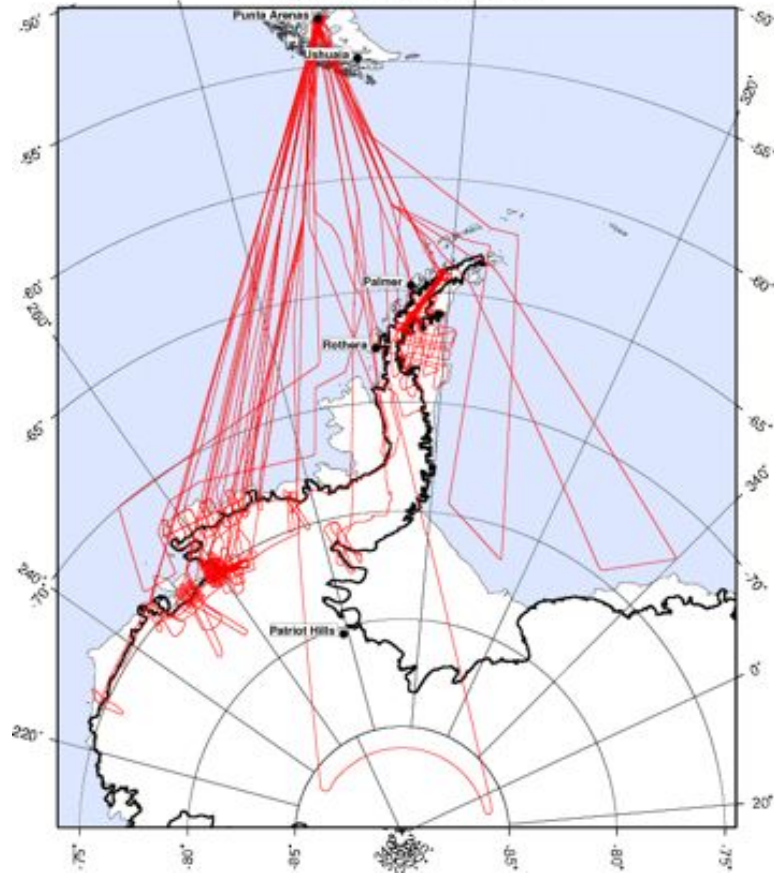






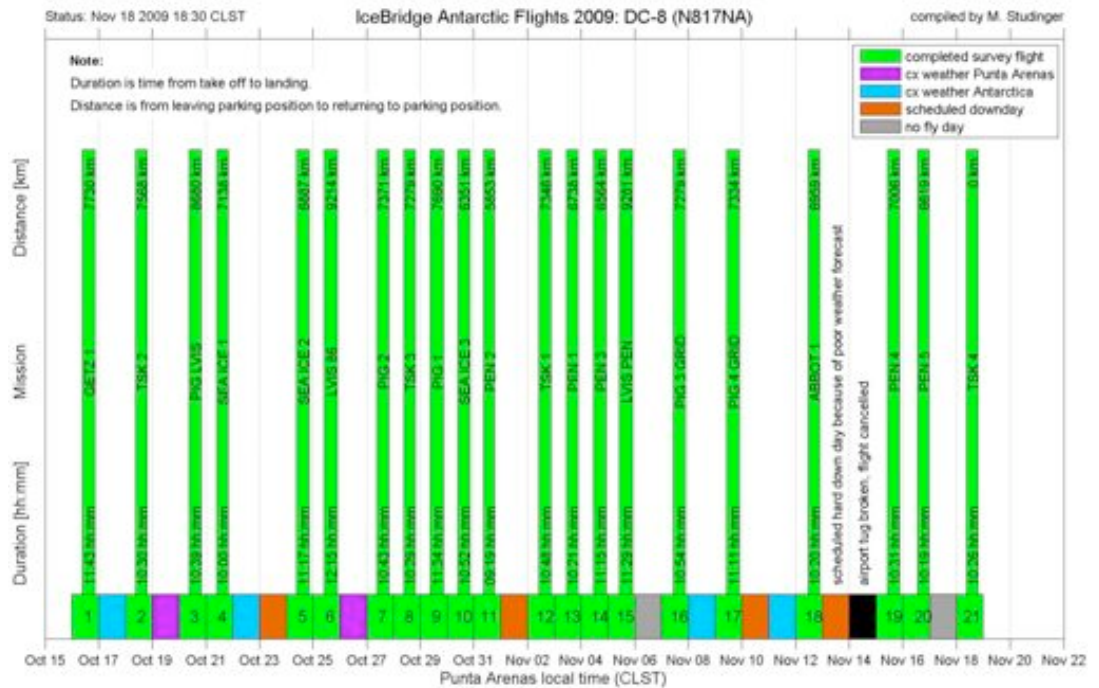
# Antarctic ICEBRIDGE Status and Results-1

**Fall 2099 IceBridge Missions Flown**  
Updated 19 November



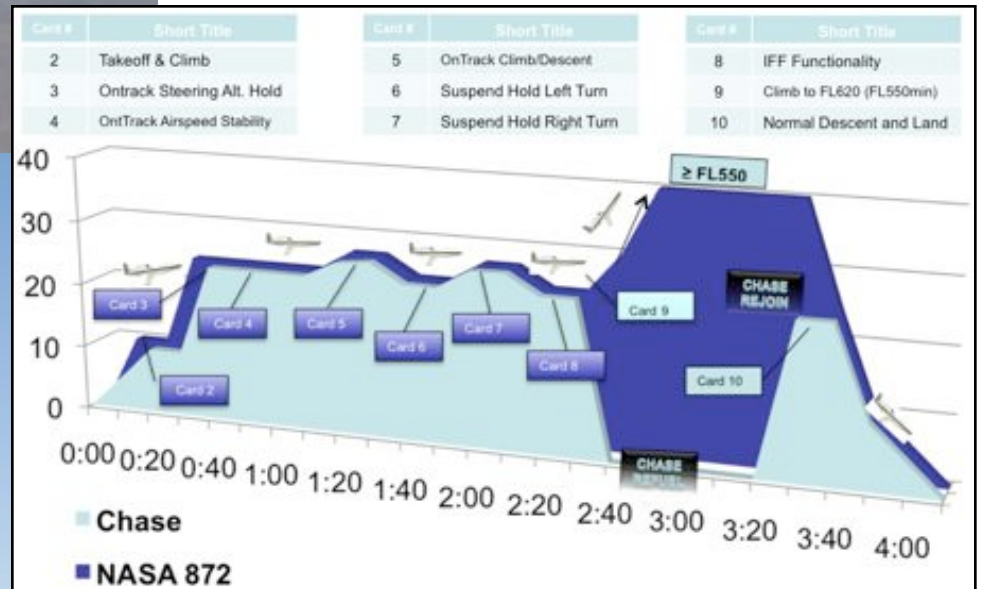
DC-8 over Palmer Station (courtesy Jon Brack)

Lines represent 21 missions, or 227.4 flight hours, or 83,858 nautical miles, or 96,564 statute miles, or 155,137 km flown (about 4 times around the Earth at the equator). Excellent planning by Ames and Goddard-Wallops allowed for extra missions to be flown.





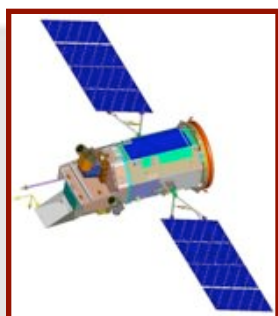
# NASA Global Hawk First Flight



# Missions in Formulation and Implementation – 12/2009



OCO-reflight  
2/2009  
???



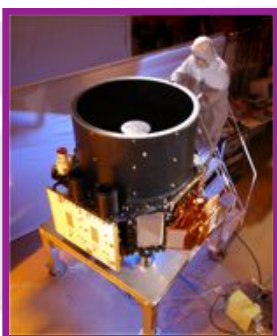
GLORY  
6-9/2009  
11/2010



AQUARIUS  
5/2010  
12/2010  
(Partner)



NPP  
Late 2010?  
NET 9/2011  
(Partner)



ICESat-II  
2014-2015  
2015-2016



SMAP  
3/2013  
2015



GPM  
7/2013, 11/2014



LDCM  
12/2012  
with TIRS



# Decadal Survey Missions Next Generation



Near-Term Missions:  
Mid-Term Missions:  
Late-Term Missions:



### VENTURE-CLASS

Global Hawk

DC-8

# Venture Class – ESD Objectives



- ESD considers establishment *and sustained, successful implementation* of Venture-class to be a “Tier-1” priority from the Decadal Survey
  - Advances science/applications and promotes community involvement through frequent, regular proposal opportunities
  - Ensures overall program scientific flexibility and responsiveness through constrained development schedules
- ESD Venture-class characteristics
  - Science-driven, involving sustained (> seasonal) data acquisition
    - *Technology development/demonstration are not sufficient justifications*
  - Regular solicitations
    - *Bi-annual minimum frequency accommodated in President’s budget*
  - Competitively selected
  - **PI-led**
  - Cost and schedule constrained
    - *Explicit total cost caps per investigation defined in each solicitation*
    - *5-year total investigation term (data acquisition and analyses) for suborbital investigations*
    - *5-year development time-to-launch for space missions – all investigation <sup>8</sup> activities must be completed within nominal (typically 3-year) mission*



# Decadal Survey Missions Next Generation



Near-Term Missions:  
Mid-Term Missions:  
Late-Term Missions:



### VENTURE-CLASS

Global Hawk

DC-8