



Masters Forum #5



Project Planning “BEST” Practices



Staffing & Building the Project Team During Formulation

August 20, 2002





Staffing & Building the Project Team

Project Planning “Best” Practices



During Formulation - before Instrument/Payload selection

- **Learn/Develop Mission Information, Responsibilities, Organizational Structure, & Resource needs**
- **Start Staffing Process**
 - Work with functional organizations to hand pick core team
 - Conduct one-on-one & all hands meetings
- **Acquire Office Facilities**
- **Build Team Environment**
 - Conduct kickoff, retreat, & develop project environment/communication
- **Work Trades & Develop Concepts (formulation)**
- **Assist in Payload Accommodation Assessment & Prepare for Selection**

Select/build the team, work formulation, then hit the ground running upon payload selection





Example



Process & Tools used for Staffing & Building the Solar Dynamics Observatory (SDO) Team

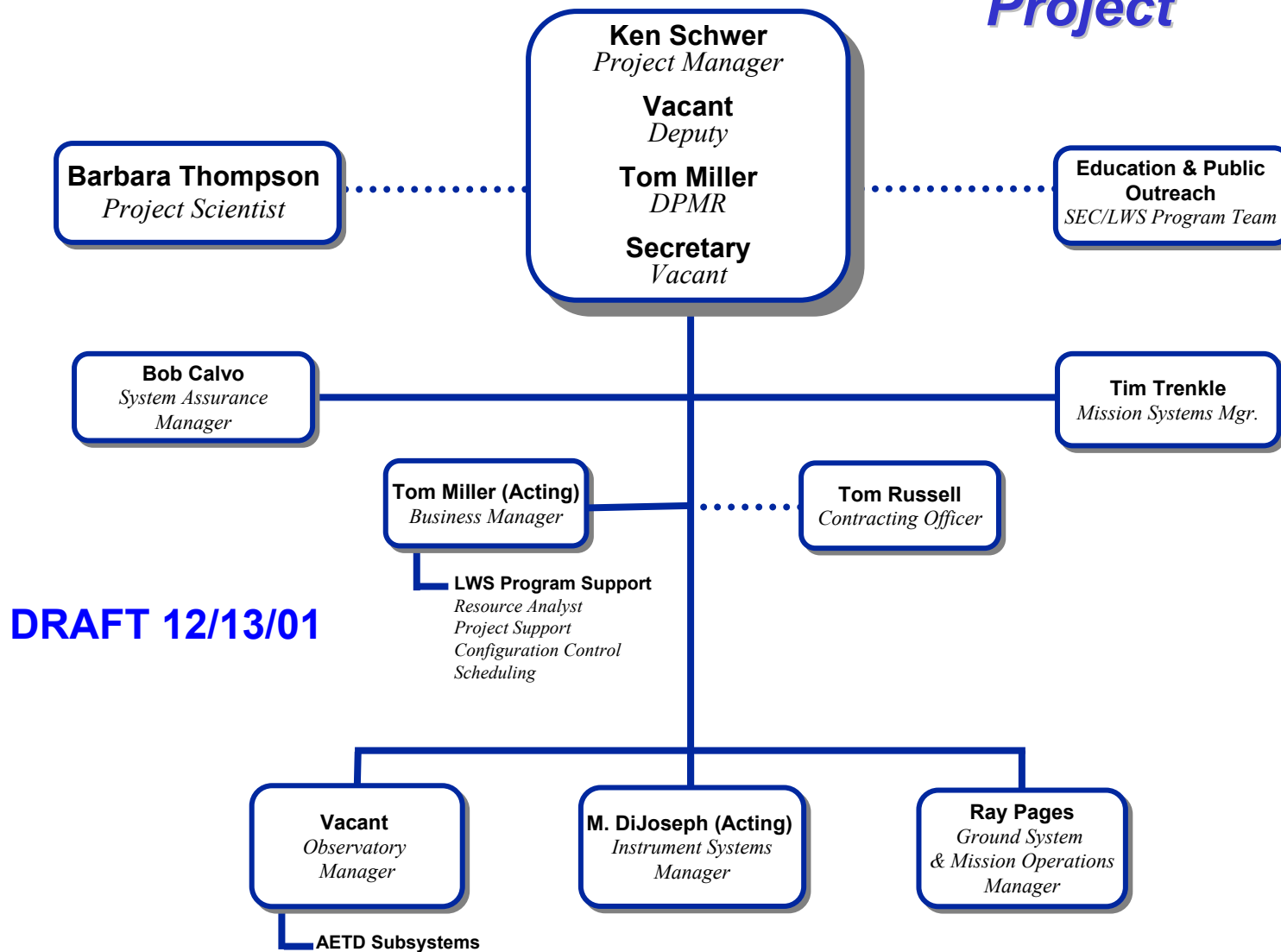
SDO Background

- In formulation with Instruments just selected
- First Living With a Star (LWS) Mission, part of Sun Earth Connection theme.
- Will characterize the dynamic state of the Sun enhancing the understanding of solar processes and space weather. Viewed as Solar Heliospheric Observatory (SOHO) follow-on
- Provides continuous high rate data stream for solar evaluation, GEO orbit, launch August 2007, 5 year life
- NASA GSFC will manage the mission, build the S/C in-house, manage instrument contracts, integrate the instruments, perform Observatory testing, develop/manage ground system & mission operations
- Investigation organizations responsible for Instrument development, Science Operations Center, & data products





GSFC SDO Project





SOLAR DYNAMICS OBSERVATORY (SDO) GSFC IN-HOUSE IMPLEMENTATION APPROACH

Briefing to NASA Associate Administrator for Space Sciences



DECEMBER 20, 2001





SOLAR DYNAMICS OBSERVATORY (SDO) GSFC IN-HOUSE IMPLEMENTATION APPROACH

Briefing to AETD

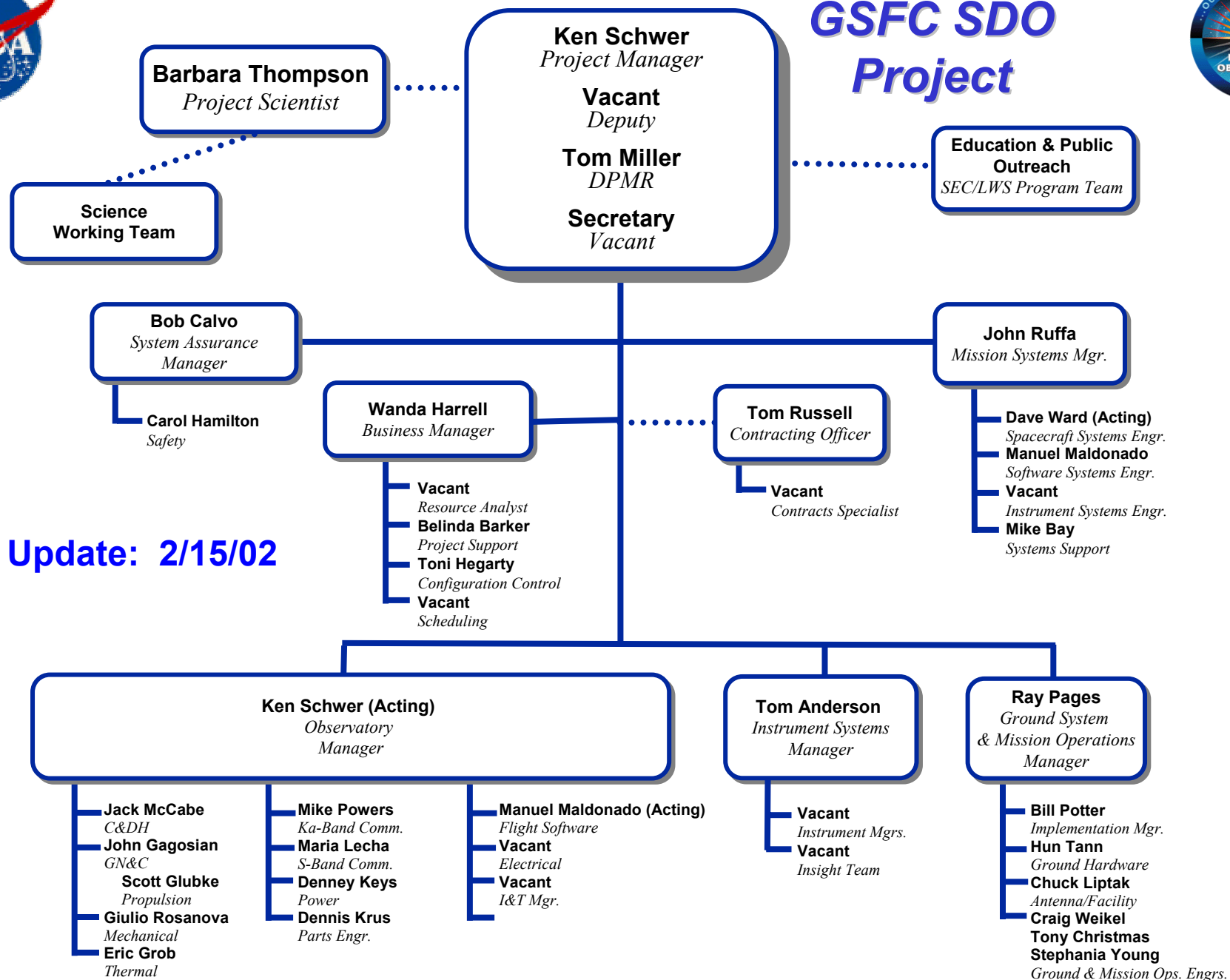


JANUARY 31, 2002





GSFC SDO Project





Science Kickoff Invitation



The SDO "Science Kickoff" will be held Thursday, March 7, at the Maryland Science Center in Baltimore. The first presentation will begin at 8:45 am (sorry, we had to work with their schedule!). To facilitate the arrivals, we will be serving breakfast at 8:00 am in the Harbor Terrace Room.

The event will consist of a series of presentations and discussions intended to give the SDO spacecraft team an overview of solar science, space weather, and solar observations and instrumentation.

The presentation is non-proprietary; all individuals working on SDO are invited to participate.

We are planning on finishing early afternoon (2:30 or 3:00), so people can either take advantage of the science center or head back to GSFC for a partial work day.

Continental breakfast, lunch and refreshments will be provided.

We will be in the Harbor Terrace Room all day, except for the opening presentation, which will be in the IMAX theater from 8:45 to 9:45 am.

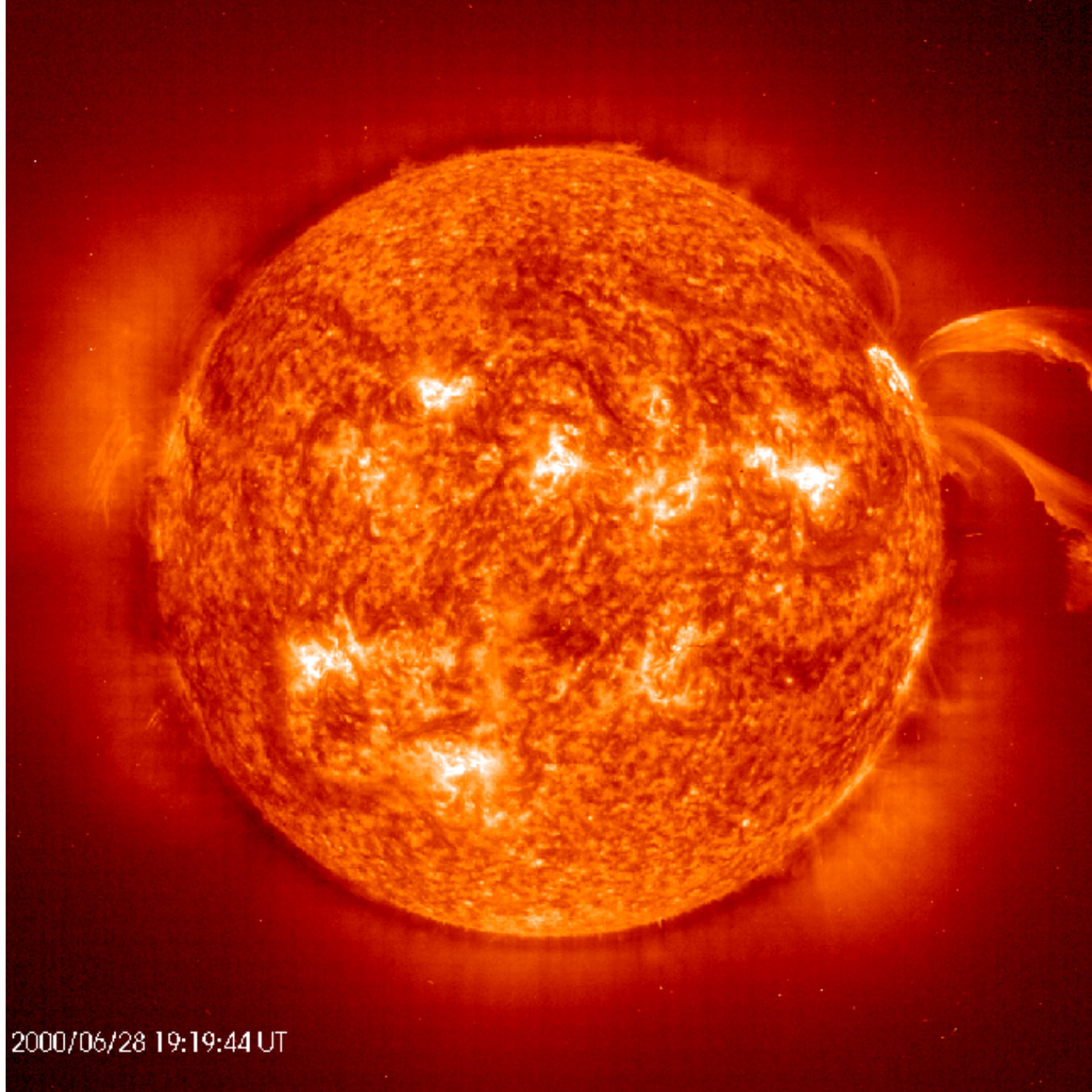
We need a headcount of participants for conference support. Additionally, we are arranging for a GSFC van, which will leave the Building 16 W parking lot ~ 7:45 am.

See you there!!









2000/06/28 19:19:44 UT







Solar Dynamics Observatory (SDO) Systems Retreat

March 28, 2002

John Ruffa- Mission Systems Engineer

David Ward- Spacecraft Systems Engineer

Peter Gonzales- Systems Support, Mission Ops Concept





Systems Retreat Agenda

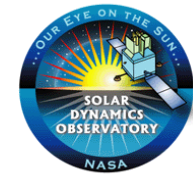


- **Why are we here?**
 - Development roadmap
 - Guiding principles
- **SDO Resources**
 - Schedule, manpower, budget
- **SDO overview & development effort**
 - Mission overview and top-level requirements
 - Major mission drivers
 - Ops Concept
 - Implementation options, trades, drivers/issues
 - Subsystem requirements and implementation options/trades/new technologies
 - ➔ GN&C/ Propulsion
 - ➔ C&DH/RF/Ops
 - ➔ Mechanical/Thermal
 - ➔ Software
- **Round table discussion**
 - Mechanical Architecture Initial Concept
 - Electrical Architecture Initial Concept
 - Instrument issues
 - Other Items???
 - Open table
- **Future plan of action/Wrap up**





GSFC SDO Project



Barbara Thompson
Project Scientist

Science Working Team

Ken Schwer
Project Manager

Rob Lilly
Deputy PM

Tom Miller
Deputy PM Resources

Secretary
Vacant

Education & Public Outreach
SEC/LWS Program Team

Bob Calvo
System Assurance Manager

- Carol Hamilton**
Safety
- Adrian Rad**
Risk Mgmt. & Reliability
- Amy Potter**
Software QA
- Chuck Powers**
Materials

Wanda Harrell
Business Manager

- Vacant**
Resource Analyst
- Belinda Barker**
Project Support
- Toni Hegarty**
Configuration Control
- Vacant¹ (offer made)**
Scheduling

Ron Brade
Contracting Officer

- Vacant**
Contracts Specialist

John Ruffa
Mission Systems Mgr.

- Dave Ward (Acting)**
Spacecraft Systems Engr.
- Manuel Maldonado**
Software Systems Engr.
- Vacant**
Instrument Systems Engr
- Mike Bay**
- Pete Gonzales**
Systems Support
- Sharon Straka**
- Chris Lorentson**
Contamination
- Mike Xapsos**
- Janet Barth**
Radiation

Update: 4/18/02

Ken Schwer (Acting)
Observatory Manager

- Jack McCabe**
C&DH
- John Gagosian**
- Wendy Morgenstern**
GN&C
- Scott Glubke**
Propulsion
- Giulio Rosanova**
Mechanical

- Mike Powers**
Ka-Band Comm.
- Maria Lecha**
S-Band Comm.
- Denney Keys**
Power
- Eric Grob**
Thermal
- Chuck Monroe**
Mechanisms

- Manuel Maldonado (Acting)**
Flight Software
- Paul Kim**
Electrical
- Roger Miller**
GSE Systems
- Dennis Krus**
Parts Engr.
- Vacant**
I&T Mgr.

Tom Anderson
Instrument Systems Manager

- Vacant**
Instrument Mgrs.
- Vacant**
Insight Team

Ray Pages
Ground System & Mission Operations Manager

- Bill Potter**
Implementation Mgr.
- Hun Tann**
Ground Hardware
- Mike Uffer**
Data Distribution
- Chuck Liptak**
Antenna/Facility
- Craig Weikel**
- Tony Christmas**
- Stephanie Young**
Ground & Mission Ops. Engrs.



Solar Dynamics Observatory (SDO) Formulation Status

Briefing to NASA HQ Sun Earth Connection/LWS

April 19, 2002

Ken Schwer – Project Manager

Barbara Thompson – Project Scientist

Rob Lilly – Deputy Project Manager

Tom Miller – Deputy Project Manager Resources

John Ruffa – Mission Systems Engineer

Tom Anderson – Instrument Systems Manager

David Ward- Spacecraft Systems Engineer





Solar Dynamics Observatory (SDO) TMC Panel

June 18 – 20, 2002

Cindy Daniels





Solar Dynamics Observatory (SDO) Instrument Accommodation Study

Briefing to NASA HQ Sun Earth Connection/LWS

August 1, 2002

Ken Schwer – Project Manager

Rob Lilly – Deputy Project Manager

Tom Miller – Deputy Project Manager Resources

John Ruffa – Mission Systems Engineer

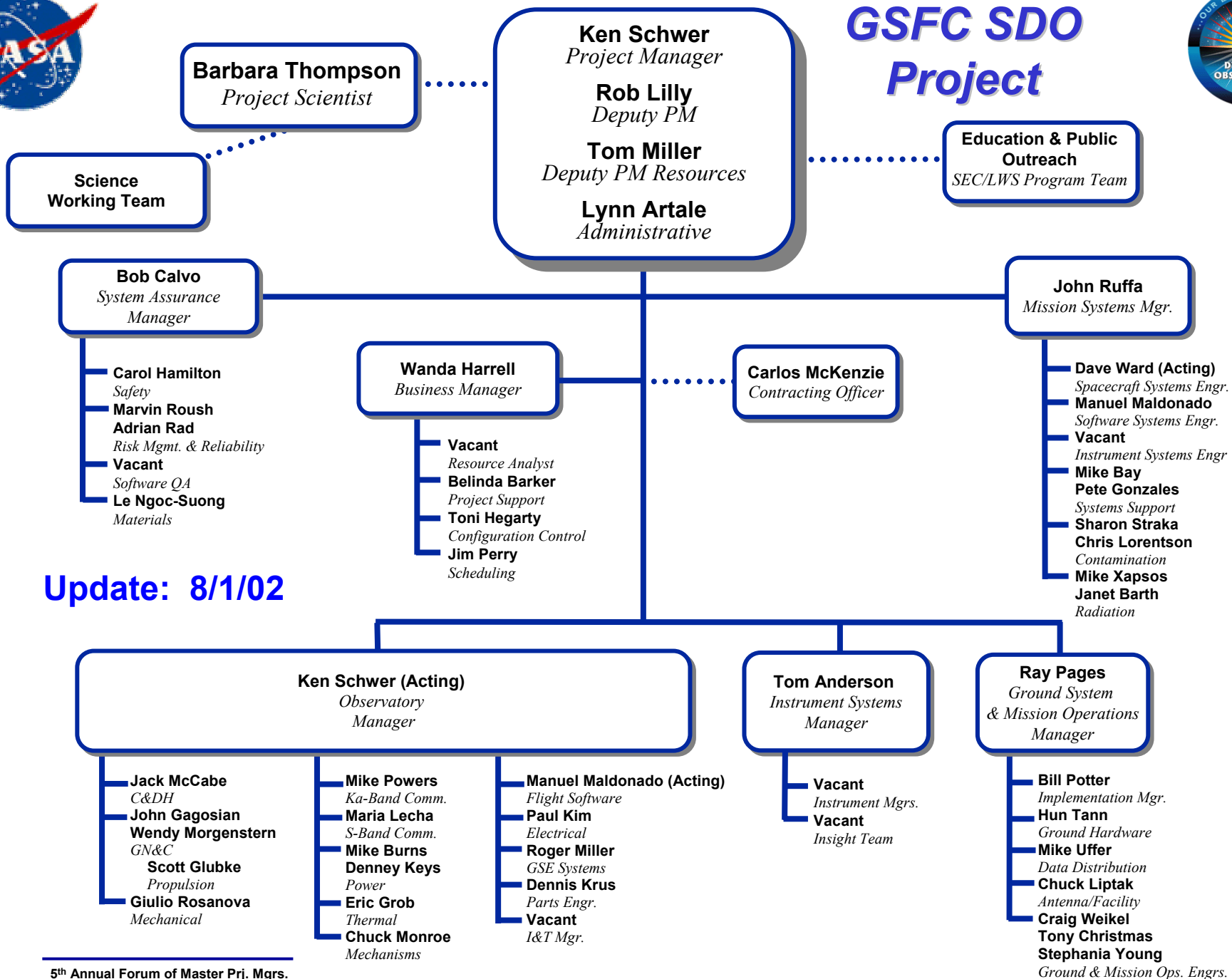
Tom Anderson – Instrument Systems Manager

David Ward- Spacecraft Systems Engineer





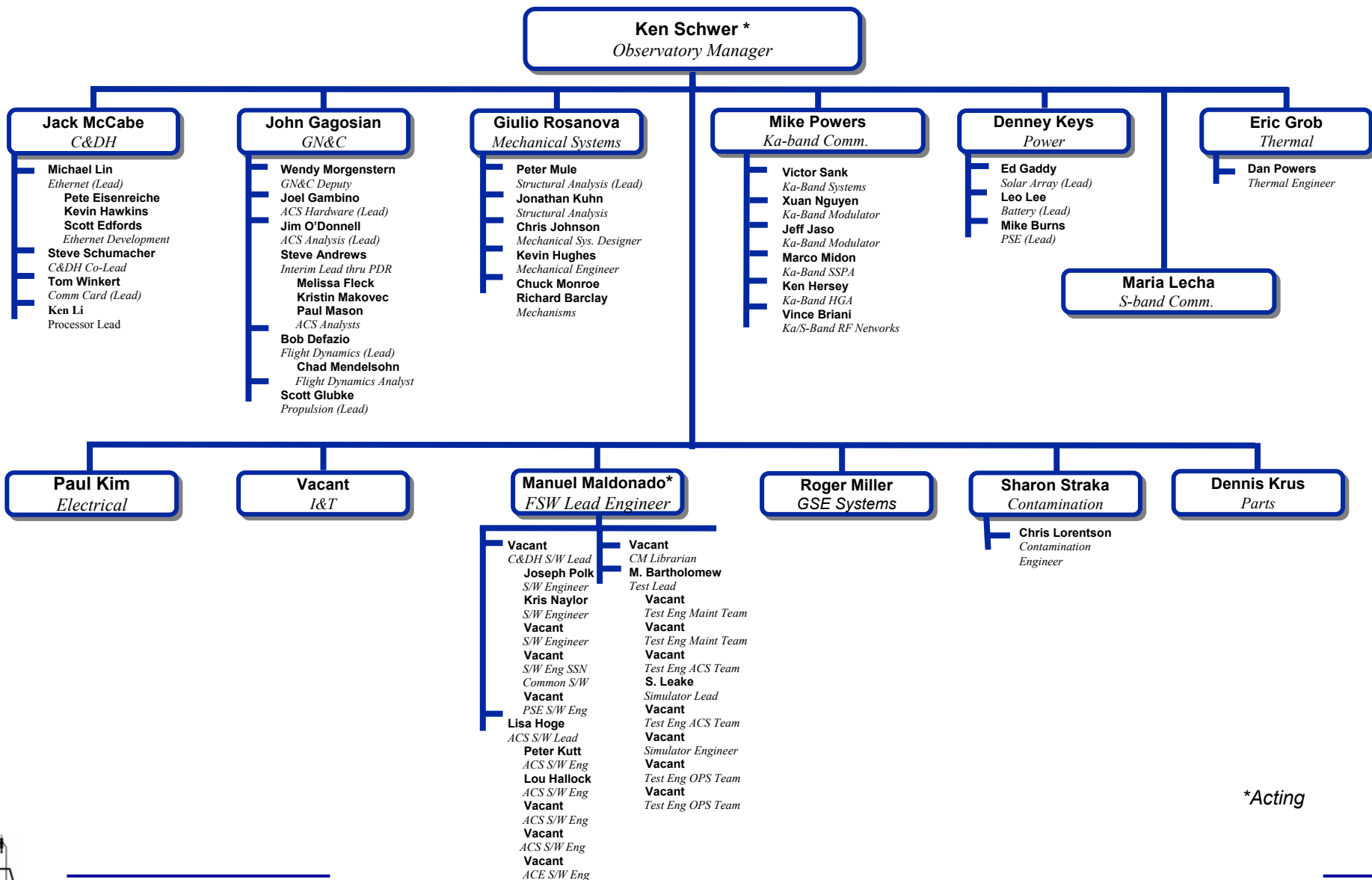
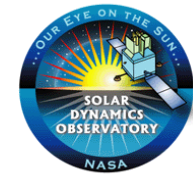
GSFC SDO Project





GSFC SDO Project Observatory Subsystems

Updated 8/16/02



*Acting



COMMUNICATION





Backup





Project Status

