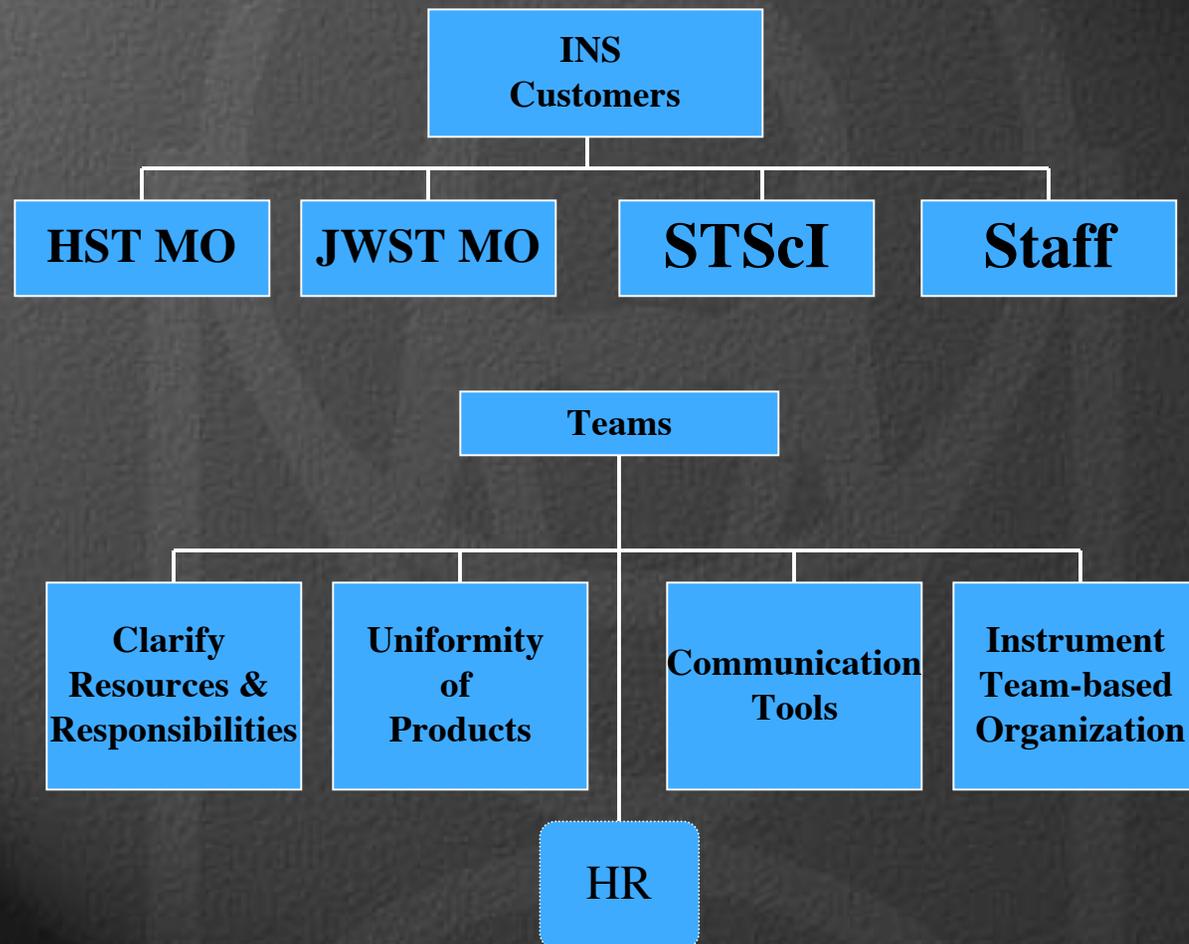

Working Group for INS Organization

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December 11, 2006

Working Group for INS Organization



INS Theme Team #1: Clarify Resources and Responsibilities

Recommendations based on discussions within Team #1 and with other individuals across INS

C. Blades, S. Casertano, L. Dressel, D. Karakla,
P. Lee, R. Makidon, and W. Sparks

Clarify Resources and Responsibilities

- Charged with the clarification of resources and responsibilities of individuals and groups across the Division.
- Based on Management Theme Team Recommendation #2

Instrument teams and Mission offices will jointly define the resources available to each instrument team. In addition to scientists and data analysts, team members will now also include programmers. Team leads have authority to define goals and priorities, and carry out performance appraisals, for all team members (including data analysts and programmers), and not only for the scientists. These appraisals are reviewed by a manager with a more global view than any individual instrument team lead, to ensure fairness. Team members are generally assigned to a single team, but people should be free to work on multiple teams if reasonable. In this case one team lead acts as primary and is responsible for the overall appraisal. For staff members with duties spread over more than one team, the fractions of time devoted to each team will be jointly defined by their home division and the instrument team leads. Generally staff assignments to teams should be at least one year long so as to ensure team work plan stability.

Clarify Resources and Responsibilities

- In taking on this charge, the Resources and Responsibilities Team were asked to keep the following questions in mind:
 1. What is the plan or the method of implementation (of this recommendation)?
 2. How would we include programmers in the Instrument Groups given the current ESS organizational structure? *
 3. Need to clarify the "DA resource issue" - do we place the DAs who support science in a separate branch or team? *
 4. Who decides what work does and does not get accomplished? *
 5. Who resolves conflicts regarding resources and personnel issues? *
 6. [What is the role of the Branch Heads and Team Leads] with respect to management plans, personnel allocation, and staffing plans? *
 7. Who decides the issue of staff evaluations, promotions, etc? *
- An alternative question #6 had been proposed by INS Division Management:
 - 6a. What would be the roles of the Team Leads if we did away with Branch Heads with respect to management plans, personnel allocation, and staffing plans? *

Clarify Resources and Responsibilities

1. We recommend the HST Instrument Teams interact directly with the HST Mission Office to define the required tasks for each instrument on a six- to twelve-month timescale, and work with the Mission Office to define the FTEs required to support those tasks.
2. We recommend that the INS and ESS Divisions study the prospect of re-incorporating the Science Software Branch back into the INS Division as a means to more closely align the interests of Division and data analysis programmers. We further recommend that future work managed via INS-based teams incorporating individuals from other divisions be subject to a matrix agreement between divisions that defines the task, the timescale for completion of the task, and the individual who will be performing the task.
3. We recommend that the Instrument Teams continue to function as part of a group that maintains a common Theme or skill set (i.e., ACS + WFPC2) and that each of these groups meet on a regular basis to share problems and solutions among the Instrument Teams. Likewise, Team Leads within each Theme should work together and with Division management on issues such as personnel allocation, staffing plans and evaluations.

INS Team 2

INS Products Team

J. Mack, R. Diaz-Miller, D. Karakla, M. Lallo, E. Smith

Uniformity of products

GOALS:

Maximize the quality and uniformity of INS products.

Use consistent testing quality control.

Provide a fluid means of sharing the latest information with users.

GENERAL RECOMMENDATIONS:

- The Team Lead will be accountable for the quality of the team's products. This work may be formally delegated to a combination of one or more Instrument Scientists, Data Analysts, and Programmers in the following areas:
 - Pipeline and Reference Files
 - Data Analysis Software (e.g. MultiDrizzle)
 - User Support and Documentation
- An annual review will be conducted by the Division Lead to ensure that the highest quality products are delivered and that changes or errata are documented in a timely manner.
- A more extensive division-wide review is necessary to establish and enforce these guidelines.

Uniformity of products (continued)

Recommendations: Software and Reference Files

A direct interface with ESS shall be established to negotiate the schedule, requirements, and resources allocated for each project. The two groups will remain in communication throughout the duration of the project. Programmers will be assigned a fraction of time to support the Team and will be appraised by the Team Lead for those duties.

A.) All software updates (e.g. MultiDrizzle, CALxxx, SYNPHOT) will require 5 steps:

1. File a formal Problem Report for tracking
2. Create comprehensive regression test suite
3. Document changes appropriately
4. Deliver products
5. Communicate to the user community (STAN, Team webpages, online forums)

B.) All reference file deliveries will require 3 steps:

1. Recalibrate a sample dataset and verify changes
2. Deliver according to CDBS requirements
3. Verify that webpages are appropriately updated

C.) No products will be delivered without the appropriate documentation. Existing products with lacking documentation will be brought up to date.

Uniformity of products (continued)

Recommendations: Documentation and User Support

New products, software enhancements, FAQs, and errata will be communicated to users via the appropriate medium. The ultimate goal is high quality documentation such that the number of user questions is minimized. While preserving the high quality of such documentation, we recommend reducing the effort/resources required and improving the timeliness of updates.

Examples: Handbooks, Online forums, Help Desk, ISRs, STANs

A.) **Handbooks** will provide detailed information for each Instrument.

They will be updated as needed, driven by content, and consistent in format.

The longstanding model of a handbook, which serves both as a print document (book) and an HTML document, is becoming impractical to produce with the existing tools and resources. The Mission office and Division management will work together to choose one single format for handbook production, thus improving the timeliness and flexibility of the process, while at the same time reducing the resources required.

ITS could be most supportive by being more flexible and forward-thinking in their choice of the latest tools and in working with members of the Division to implement solutions consistent with our evolving requirements.

Uniformity of products (continued)

B.) **Online forums** will provide timely updates to multiple users simultaneously.

The latest software bugs, new and upcoming calibrations, and FAQs will be reported, and threads will be monitored to ensure that the most accurate, up-to-date information is disseminated in a timely fashion.

C.) The **Help Desk** will provide answers to individual user questions.

Each month, frequently asked questions will be reported to the Team Lead, and this information will be addressed in the online forums, until more formal documentation is in place.

D.) **ISRs** will provide the most detailed discussions of new calibrations and products, including software and reference files.

No products will be delivered without the appropriate documentation. The existing MultiDrizzle and PyDrizzle documentation will be brought up to date via a series of ISRs written in collaboration with the programmers.

E.) **STANs** will be published regularly and will provide news of recent Team activities, new documentation, and calibration products. STANs will be emailed to the entire Division's staff in addition to the user community.

INS Team 3

INS Communications

D. Soderblom, E. Barker, and R. Makidon

Communications

1. Start shared weekly reporting across the division and HST Mission

JWST has this system. It is very effective for letting everyone involved see what others are doing and for documenting progress as it occurs. Share bad news, problems, concerns, and shortfalls. Report work honestly and straightforwardly. A specific means of accomplishing this action is through one or more wikis and avoid the pitfalls that sometimes come with e-mail.

2. Have team reporting go directly to and from the HST Mission Office.

3. Have INS management provide division status reports at each TIPS..

4. Have INS management set communications goals for team and branch leads and inculcate expectations of improved performance.

Management needs to keep the problem of communication as important as the technical tasks we perform and to let team and branch leads know that it matters. Management needs to show its commitment to improved communication each and every time it can. The leads can be asked “Did you get feedback from your people on that issue, or just tell them about it? What did they say?” or “Did your last meeting have an agenda provided ahead of time?” or “How do keep track of what your people do?” It is this kind of accountability that leads to progress.

INS Team 4

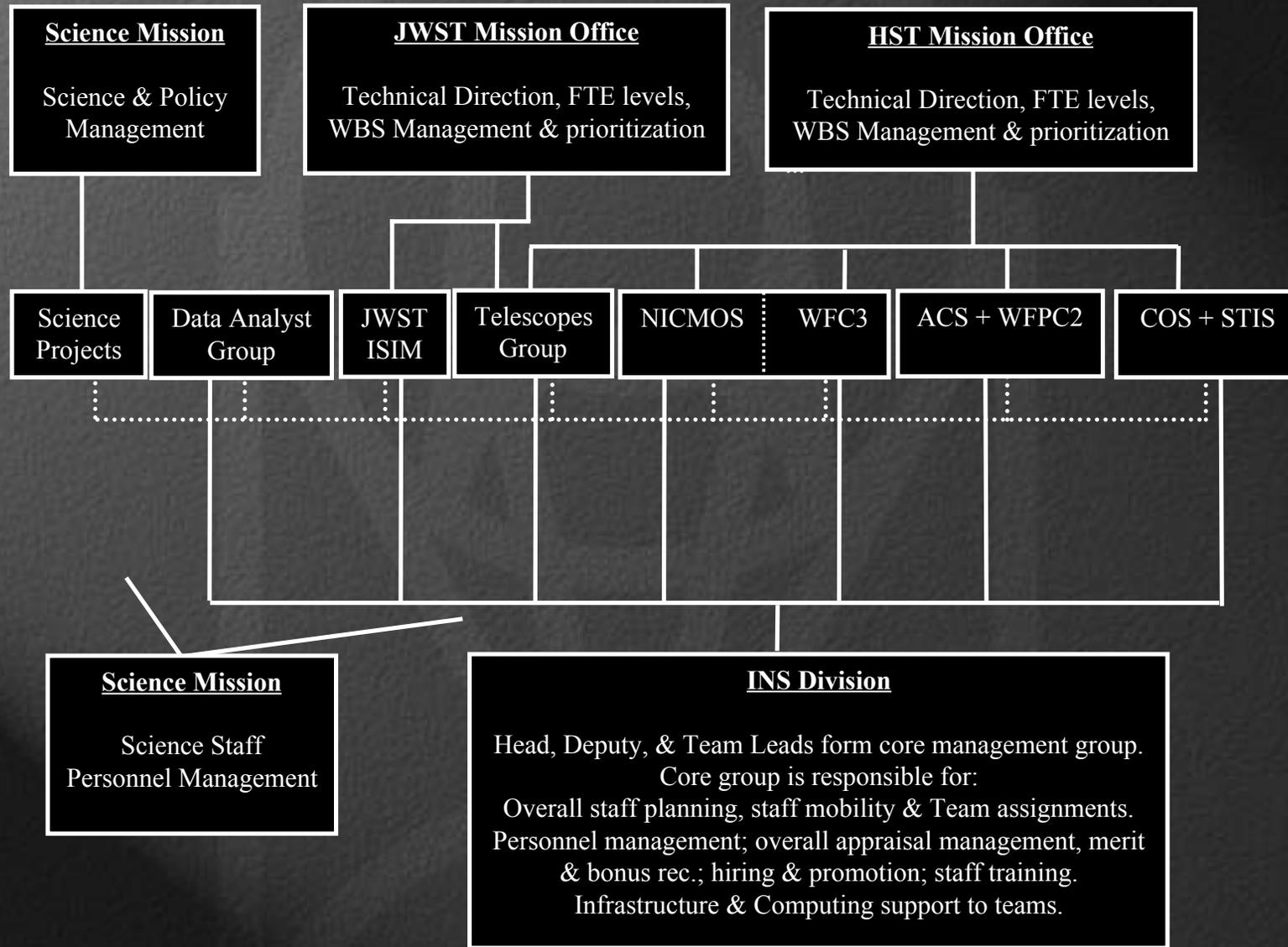
A Team-based Structure for the INS Division

*A. Aloisi, C. Blades, T. Brown, R. Diaz-Miller, S. Holfeltz,
T. Keyes, A. Koekemoer, G. Kriss (chair), P. Lee,
K. Noll, K. Sembach, B. Sparks*

Team-based Structure for the INS Division

1. The division should move to a flatter management structure centered on instrument teams along with groups that supply supporting expertise.
2. The HST Mission Office should take on a more active role in coordinating the technical direction, resources (i.e., FTE levels), task priorities and schedules for the HST instrument teams in a way that parallels JWST Mission Office interactions with INS.
3. There should be a Data Analyst Group that coordinates personnel issues for the data analysts.
4. The team-based structure will consist, in some cases, of teams that are combinations of existing instrument teams. We recommend starting with the Telescopes Group, ACS+WFPC2 and STIS+COS as combinations, and consider merging NICMOS+WFC3 at some point after SM4.

Team-based Structure for the INS Division



Recommendations from the Data Analysts

Initial Quick-Look Recommendations

- 1. The need for DAs to maintain project assignment mobility (science to science, instrument to instrument, and science to instrument, etc.) is a high priority.
- 2. The DAs need a DA group manager/advocate to facilitate transfers, project assignments, etc.
- 3. The DAs need to remain as one group (research support et.al), managed by one person, no matter where the group resides in the organization.

1. Project Assignment Mobility (between instrument & research support)

- Opportunity for movement between instrument and research support assignments is basic to the DA position. This mobility provides cross-training which is critical for developing skills necessary for both types of support as well as being essential to DA morale.
- Both types of support functions require strongly overlapping skill sets, thus both should continue to be assigned and evaluated within their peer group.

2. A Pool of Shared Expertise

- The DA structure *promotes* group support of the individual: i.e., hire 1, get 20. This "culture" of DA-to-DA mentoring and 'how do I do this?' problem solving support should be preserved.
- The current structure places a strong emphasis on training in core skills relevant to our diverse functions, e.g. via the INS Training lectures.

3. Appraisal Normalization

- An equitable normalization of annual appraisal & pay reviews as provided by INS's department-wide review, with appropriate input from the DA lead, should be maintained.
- The same review mechanism should continue to apply to all DAs (instrument and research support) regardless of the department or division of their current assignment.

4. Career Path

- The current structure provides a path for advancement from entry level to the highest levels of both instrument and research support responsibilities. Any structure should continue to maximize use of the ever maturing DA skill set.

HR Theme Team Recommendations

L. Dressel, A. Aloisi, S. Holfeltz, R. Diaz-Miller

HR Theme Team Recommendations

- Make sure that all INS staff is aware of their strengths and weaknesses through a fair evaluation from managers, peers and subordinates.
- Career goals and work should be recognized and respected through
 - a) More involvement of the staff on their project assignment.
 - b) Allow people to work on no more than 2 projects at any one time; unless they want to.
 - c) Recognition of work independent of job title
- INS should provide their staff with more access to mentoring through
 - a) A formal mentoring program and
 - b) A division wide training/expertise network that allows staff to easily identify people that could help to learn or solve problems.
- The INS division should organize more informal gatherings: Annual picnic, party after all hand meetings.