From March 15-16, 2001, ESS held its annual off-site management retreat. This retreat, titled "Building a Better ESS", was held to enable ESS management to discuss and identify initiatives in the near term (1-year) and mid term (3-years) that will improve our efficiency and effectiveness for our customers and ourselves. A secondary objective for the retreat was to enable ESS managers and some invited senior technical staff an opportunity to get better acquainted with who they are and what they do. Thirdly, the ESS Division Head wanted to get some forward-looking ideas about where ESS saw its self going down the line - where and what its “business” was going to be and how we wanted to position ourselves to be most effective in accomplishing that business.

The retreat contained five sessions of approximately 2 hours in length. The first four sessions had a defined facilitator, timekeeper, and recorder as well as an agenda. These sessions were primarily to facilitate discussion, identify issues or initiatives, and produce some type of prioritization. The final session was the direction setting session – what are we doing when.

The session started with a review of initiatives that either came out of the 2000 retreat or that were started in ESS's first year. These included a new methodology for training, a move to the structured and virtual monthly, updated position descriptions, metrics, bottoms up reports, and the standardization of the system engineering process. In addition to these initiatives, ESS also handled the unexpected activities of the reduction in force and the subsequent hiring difficulties. All of these were carried out without adversely affecting our abilities to meet the needs of our customers. Not bad for a new organization that was very much in a forming stage.

There were areas identified at last year's retreat that were not addressed during the year. Some of these were a better definition of the matrix process, a clearer understanding on the roles and responsibilities of ESS staff (How responsibility and authority flow down the organizational structure), improving communication and understanding how overheads affect our schedules.

We identified possible areas for improvement to be considered in the upcoming year.

- **Communication**: Investigate ways to improve the form and format of communication, while recognizing that everyone communicates differently.

- **ESS Business Model**: Define how ESS operates both internal to the Institute and to the broader community.
• **Morale**: Acknowledge that STScI is a wonderful place to work and re-establish esprit de corps of earlier servicing missions.

• **System Engineering**: Better understand when and how to apply the system engineering process.

• **External Relationships**: Reconcile working relationships between other STScI Divisions and ourselves.

**Session 2: Improving Morale**

Facilitator: Mary Alice Rose  
Time Keeper: Marty Durkin  
Minutes Taker: Tony Krueger

The session started with an introduction that highlighted that morale concerns exist throughout STScI and that they are being acknowledged at high levels of STScI management. The definition of morale, "a strong sense of enthusiasm and dedication to a commonly shared goal that unifies a group"¹, was discussed.

A brainstorming session to identify STScI characteristics that have either a positive or negative affect on morale was performed. Some of the items that were mentioned were:

• **STScI Awards**: Viewed both positively and negatively, the awards program was seen positively for its acknowledgement of commitment and contribution, but negatively for some of the politics surrounding selection of recipients.

• **Common Purpose**: The uncertainty of life after HST has made it unclear where new opportunities for interesting work will occur. Additionally, the shift to a service arm of STScI has removed many from day to day information about the state of HST.

• **Flexibility**: STScI provides a working environment that is positively flexible to individual's schedules and lives.

• **Relationship with Goddard**: That this relationship has become more of a customer to contractor one rather than two organizations working toward a common goal.

• **Esteem**: That a technical breakthrough, though often necessary for a science breakthrough, is not as obviously valued.

• **Sense of Achievement**: That working on a project such as HST or NGST contributes to humankind’s understanding and as such is a contribution that extends beyond an individual’s lifetime

• **Morale as an issue**: A question that was asked, after reviewing the number of identified positives, is whether part of our morale problem is spending too much time talking about morale problems.

Some possible suggested solutions include:

• **Advertise achievements**: Too often tasks that benefit ESS staff members are not advertised. For example, the training activities resulted in a significant increase in the overall training budget of ESS.

• **Visibility**: Too frequent use of email has removed some of the personal touches of management. Additional time should be taken to meet and communicate with your staff.

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¹ Webster's II Dictionary
• **Stay on Message**: Understand what the important messages are that need to be conveyed to STScI staff and communicate them in a consistent manner.

• **Information Flowdown**: Make a special effort to flow appropriate information about upcoming activities to the lowest levels of the ESS chain. Make management responsible for this action.

**Session 3: Communication**

Facilitator: Mark Giuliano  
Timekeeper: Mark Abernathy  
Recording: Carl Johnson

The session opened with an exercise to highlight the difficulties associated with communication, to show the importance of considering the medium in which information is passed, and to identify that both vertical and horizontal communication needs to be addressed. Issues identified include:

• **Inconsistency**: There is inconsistency in the volume, depth, and distribution of information throughout ESS. It was noted that inconsistent dissemination by other divisions of information designated confidential by the Director’s Office has made some ESS staff members feel that we are not as open.

• **Method**: A single method for communicating to teams and individuals within ESS may not always work.

• **Email**: There are no clear guidelines for how and when email should be used as an appropriate communication vehicle. This has led to increased and inconsistent email traffic.

• **Websites**: The information contained in our ESS websites has become obsolete.

Potential solutions were identified as:

• **Secrecy Guidelines**: A process for identifying confidential information should be developed and published. In general, confidential information should only pertain to personnel and competition sensitive topics.

• **Information Flow**: Define a process to identify the level information should originate and how to assure that “communication” (a two way process) has taken place.

• **Newsletter**: Begin periodic publication of a newsletter to highlight the achievements of our staff and to provide overall information on the workings of ESS.

• **Websites**: Begin a process for cleaning-up and then maintaining ESS websites.

**Session 4: Defining a Mission for ESS and its components**

Facilitator: Andy Gerb  
Timekeeper: Mark Giuliano  
Recording: Mary Alice Rose

The session opened with an introduction on the importance of a mission statement. This led to a lively discussion on the concepts and differences of a vision statement, mission statement, strategic plan, business plan, and goals and objectives. Some of the things stated were:
A mission statement shouldn't just say what we're doing today, but should be a statement that empowers as well as sets boundaries for our future.

A mission statement should be short enough that individuals remember its general contents. The division's business plan and goals and objectives is where the details of turning this statement into actions is located.

That technical breakthroughs enable scientific breakthroughs should be contained in the mission statement of ESS.

Smaller groups were formed to identify goals that are envisioned in ESS's future and therefore should be included in our mission and vision statements.

25% funding base be non-HST and non-NGST by 2004 to maintain expertise base and assure we can continue to build mission independent software and solutions.

Transition our expertise and systems from HST to NGST. A goal is excellence in both missions.

Promote collective technical expertise/products of ESS staff within ESS, STScI, astronomical community and scientific community at large in order to bring our operational solutions to those communities.

New business is a fundamental change that needs to be pursued directly by ESS. This will require the creation of an ESS business plan. We have an obligation to NASA to try to "sell" our products for use in other missions for the cost savings.

The vision statement should come from division management. That's part of leadership, but the details of how it is to be carried out comes from the staff. The statements are meaningless the intent and impact is not understood and embraced by the teams. Individual team's goals should be directly related to ESS's goals, which must be directly related to the Institute's goals. The objective is clarity of purpose for everyone.

Session 5: Defining the Plan

Facilitator: Stefi Baum
Recording: Mary Alice Rose

This session identified areas that should be worked on different timescales: Immediate (completed in three months), Intermediate (completed in 6 months), and Long-Term (completed in 1 year or longer). The clock starts ticking on April 1. In addition, a relative cost was added to indicate the level of effort that might be needed to implement a task.

Immediate (~3 months):

- Establish mission and vision statements at the division level **High priority; cost: $$**
- Publicize requirements, design, and code reviews to all ESS (web) **Low ½$$
- Publicize mini-sabbaticals **High ½$$
- Review retreat at all-hands (teams to discuss off-line) **High $$
- Establish responsibility of leads for communication from ESS management meeting (two-way) **High ½$$
- All-hands to include ESS technical and science presentations **High ½$$
- Establish policy and guidelines for confidential information. **High ½$$
- Explain “rotating staff” policy **High ½$$ -- team leads to convey
• Emphasize positives of working at STScI – **High (no cost)**

**Intermediate (~6-9 months)**

• Establish slogan and vision statements at team-level. **High $$**
• Newsletter **High – trial project -- $$ (Jim Rose, Robert Winsor)**
• Web plan/updating – gather “dog and pony” presentations; list of resources/skill mix; capture what we’ve done; design/code reviews **Extremely High $$$**
• increased “working” understanding of systems engineering process **High $$$**

**Long-term (~a year)**

• Establish and produce an ESS Business plan. **Extremely High $$$$$$$$$$**
• Have a good working relationship with NGST established. **High $$$**

The last portion of this session was devoted to a discussion of the ESS business plan. ESS needs to develop an operational plan which allows us to be three things - (1) a multi-mission engineering organization for STScI, (2) a provider of engineering solutions to the greater NASA astronomical community, and (3) a provider of engineering solutions beyond NASA into the greater astronomical community and into the greater scientific and public community at large. We consider the development of a Business Plan for ESS a key goal for ESS this next year. Stefi has asked Carl Johnson to take the lead on this project and plans to work closely with him on its development. We hope to have a plan to develop the plan in place by July 1 😊. We will involve others in ESS as the effort better defines itself. Stay tuned.