

**NGATS Institute Annual Report**  
December 2005 --- December 2006

**Institute Operations and Functions**

The NGATS Institute began the year with three full time staff. This team led in establishing initial private sector participants on all eight Integrated Product Teams to bring up the total of private sector participants to start the year at 182. A fourth staff member was brought onboard in October 2006 to lead the task request award process and assist on IPT technical coordination. The Institute executed its first year's mission through three major functions:

- Execute formal task requests and related contracts for specific private sector expertise and services
- Maintain compliance with the OTA and establish process and procedures to support private sector engagement with JPDO
- Enable full and open private sector involvement in the eight JPDO Integrated Product Teams (IPT) and program office divisions.

**Execute formal tasks and activities for specific private sector expertise and services:**

**Integrated Product Team and Participant Support**

- At the request of the IPT Directors, the Institute continued to add more participants, resulting in an additional 48 participants (27% increase) to bring the total number of private sector participants to 226.
- In addition to increasing the number of the private sector participants, the Institute also conducted reviews of the depth and extent of civil aviation expertise on these teams by identifying gaps among the IPTs for key user communities. The Institute has initiated corrective actions to fill these gaps with appropriate private sector subject matter experts from the helicopter operator, airports and international civil aviation communities.
- Institute staff participated in over 80 IPT meetings and briefings.
- Conducted a survey of participants to identify issues and problem areas at the IPT level, resulting in the creation of an Action Team to work with JPDO in rectifying the issues and problems identified by this survey.

**Investment Analysis Workshops**

- At the request of the FAA Administrator, the Institute worked to support three major user-focused workshops to identify economic cost drivers and business case criteria.
- Over 200 private sector subject matter experts, operators, pilots and specialists along with government agency representatives participated in these three workshops, resulting in major financial and investment factors being identified to help JPDO in its business case and economic modeling development.

**Funded Task Requests**

- The Institute received its first funded task request in July 2006 from JPDO for a user-based requirements analysis for Backup Satellite Navigation Technology.
- In early October, the proposal submitted by ITT Corporation (and their teammates from QinetiQ, Ohio University and Aerospace Engineering and Research Association) was selected as the initial competitively awarded proposal by the Institute.
- A second task was identified, related to spectrum analysis, but was never formally presented in 2006 by the FAA CO to the Institute. This task is expected to be given to the Institute in early January 2007.
- In September, 2006, the Master IPT endorsed five more tasks to be sent to the Institute for competitive award for FY 07. With all processes and procedures in place, the Institute is only waiting for JPDO and the FAA to formally send the first of six tasks identified for action. The Spectrum Analysis task is expected from the FAA in January 2007. The five tasks identified for FY 07 are listed below. These and the Spectrum task are described in detail on the Institute web site: [http://www.ncat.com/ngats/ngats\\_tasksFY07.html](http://www.ncat.com/ngats/ngats_tasksFY07.html)
  - NextGen Emergency Management Operations Control System
  - Community Wide Information Sharing
  - Aircraft Spacing and Sequencing in the terminal area
  - Benefits for Weather Operations
  - NGATS Operational Safety Assessment

#### Concept of Operations (CONOPS)

- The Institute participants supported various IPT evaluations of proposed Concept of Operations. The initial version was prepared by the JPDO and submitted to the IPTs for review.
- Reviews by the IPT participants of the follow on versions resulted in over 1,500 total recommendations with about 80 being identified as critical changes needed for the original CONOPS. The lack of any defined concepts or activities related to airports, general aviation, security and safety were found to be major omissions in the initial version.
- The Institute Management Council (IMC) formed an IMC CONOPS working group that produced a strategic assessment of the CONOPS version 0.2 to compliment the ongoing IPT recommendations for JPDO, with 63 issues for resolution. This working group subsequently followed up with a 56 page consensus assessment of the next edition, CONOPS version 1.1.
- Due to the negative feedback on the lack of private sector involvement from the IPT level in the initial development of the CONOPS, JPDO has since modified the process for development and review of subsequent CONOPS versions. Future CONOPS development will involve more private sector participation from the IPTs early in concept development phase.

Public Meeting --- The first and mandated Public Meeting was conducted in March 2006 as an independent adjunct to the annual Air Traffic Control Association conference in Washington, DC.

- This full and open meeting attracted over 70 private sector, industry and government attendees.
- The meeting resulted in several valuable pieces of information and has helped guide the Institute's and JPDO's subsequent public communications and outreach activities.
- Planning for the next public meeting has begun with the focus being on current and future JPDO products and activities. This next meeting will provide opportunities for a broader public review and comment beyond the private sector participants already involved with JPDO through the Institute.

**Compliance with OTA and Institute Administration** --- Some of the major organizational management and administrative activities this past year include:

Budget --- The Institute's first operating budget was developed in January 2006 and approved by the JPDO Business Manager in March. The FY 07 budget was developed in September and approved in October 2006.

Operating Plan --- The Institute's first operating plan was developed in August 2006 for FY 07 and based upon the JPDO work plan for FY 07.

OTA compliance and maintenance --- The OTA was updated to address various issues such as IMC member replacements, Executive Committee membership, conflict of issue clarification, and other minor administrative requirements. Funding modifications for the OTA were also processed to support FY 06 and FY 07 funding for the Institute as well as up to six funded task requests. Due in part to a new FAA Contractor Officer change and other administrative and contract issues, these modifications to the OTA took longer than normal, resulting in an extended review and approval process. Finally, in December, the FY 07 funding and modifications were approved and put in place.

Reports --- Formal reports include:

- Annual Report
- Monthly progress/performance (metrics) reports delivered to NCAT and to the IMC as part of the monthly IMC Board meetings.
- NGATS update report on the 15<sup>th</sup> of each month to the Executive Committee of the IMC.

Task Request Process and Documentation --- The Institute developed a detailed, step-by-step process that guides the overall development, announcement, evaluation and award of funded tasks received from the JPDO via the FAA Contracting Office so as to be in full compliance with the OTA.

**Coordinate and Enable Private Sector Involvement on IPTs and with JPDO** --- The following are the key activities and actions that the Institute has taken in the past year to enable proactive collaboration between the government and private sector partners:

Evaluate Collaboration Effectiveness: --- The Executive Director in March released an informal questionnaire to more than 180 Institute participants and members then assigned to the IPTs to identify initial issues for the private sector members on IPTs. The IMC and JPDO leadership then established a joint Action Team to assess these issues identified by the survey and develop appropriate corrective actions for the most serious issues. Among the key issues identified by the participants included:

- Failure to engage the IPTs early in the CONOPS development process
- Failure to address all of the civil aviation sectors and areas, such as General Aviation, airports, security and safety sufficiently in the initial versions of the CONOPS.
- Inadequate time for IPTs and their private sector participants to develop and review products.
- Inadequate involvement by the private sector participants in JPDO product development.

The joint IMC and JPDO Action Team addressed several of the major issues and developed recommendations, including improved communications and involvement by the IPTs and mandatory IPT training on collaboration, etc. A formal review and approval process was established to ensure that concepts and ideas are produced at the IPT level with significant private sector involvement. Several of these recommendations are now being implemented, starting with training sessions for all IPTs and Divisions and are being conducted by the Action Team.

IMC Meetings with the FAA Administrator --- There have been two meetings with the FAA Administrator and the IMC in CY 2006. These meetings permitted direct and frank dialogue on progress, issues and expectations between the IMC and the FAA.

Public and inter agency participation --- Institute staff, by request, participated in seven different private sector and government agency forums and panel discussions to help broaden and encourage participation and foster public awareness of the Institute, the JPDO team and NGATS goals and objectives.

JPDO Leadership turn-over --- A significant factor for JPDO during most of 2006 has been the impact of not having a full time Director for the program. This has made it a challenge for JPDO to move out more aggressively on many goals and objectives while waiting on a decision for a full time director. Likewise, it has limited the ability of the IMC Executive Committee to forge a stronger relationship with JPDO leadership and work jointly on strategic issues and challenges.

Defining IMC roles and relationships --- The Institute, working with RTCA who is an IMC member, developed and submitted for approval of the IMC, a white paper that defined the role and relationship of the Institute with RTCA and its long standing mission as a FACA supporting the FAA. This clarification further enhances the private sector support to JPDO and leadership provided by the IMC.

Proactive IMC Involvement --- During the first year, the IMC and the IMC Executive Committee has evolved its oversight mission to being a more proactive co-lead with

JPDO and the other government agencies. In its November monthly meeting, the IMC Executive Committee recommended to the IMC a more proactive role. This was endorsed by the entire IMC to work more closely with the JPDO Director to have greater impact on the NGATS development process. Greater emphasis will be placed on major policy, future concepts and operational aspects of the JPDO activities and products, especially as it relates to ensuring broad and significant civil aviation requirements and issues. Some of these leadership actions include:

- Regular meetings with the JPDO Director and Deputy Director to address strategic JPDO organizational issues, products, concepts, planning and inter agency participation.
- Identifying key issues or barriers where civil aviation leadership can provide assistance and resolution.
- Facilitate private sector input and help drive goals and objectives.
- Directing the Executive Director to identify and recommend areas and issues where joint IMC and JPDO leadership can be more productively engaged.