DTFAWA-05-A-00005
Task Order 2: Spectrum Study

Task Request: Conduct a survey of government and industry initiatives related to resolving Spectrum/Bandwidth constraints

Background. The FAA's READAC Executive committee has requested a JPDO sponsored analysis of spectrum and bandwidth use needed to implement the Next Generation Air Transportation System (NGATS). In subsequent discussions, there was general consensus that there are a number of initiatives already underway related to this challenge, both in government and industry. It is our recommendation that a comprehensive inventory of existing and planned research, technology, and current efforts in general be conducted to meet the request of the REDAC EC.

Rationale. Assessment of the ability to exploit spectrum/bandwidth in the context of the envisioned NGATS capabilities and operating principles is a critical initial component of a viable NGATS roadmap and architecture. Failure to provide a meaningful foundation for subsequent estimates of strains or efficiencies related to the NGATS concept will cripple the viability of the concept. Furthermore, we deem it essential that such an assessment be conducted by an impartial entity in order to ensure the impartiality of the assessment and to preclude the insertion of any pre-decisional solution sets.

Statement of Work. Conduct a current inventory of programs and initiatives aimed at increasing spectrum capacity/bandwidth (to include data compression and streaming) in the context of the NGATS vision. This will need to address the key capabilities/operating principles to include: Government/Industry/Private sector Net-Enabled Information Sharing for air traffic management, meteorological products, safety, security and environmental compliance and global interoperability. Analysis should include:

- Descriptions of relevant initiatives/research/programs as appropriate
- Owning agency or entity
- Relevance to the NGATS Concept/Capabilities
- Estimates of the NGATS efficiencies to current spectrum/bandwidth constraints. Specifically, the analysis will address the following issues/questions:
    - Spectrum availability upon de-commissioning legacy NAVAIDs and communication systems
    - What frequencies might be targeted for commercial sale?
    - Of the spectrum that might become available, will there be interference with wireless frequencies?
    - What are the future projections of broadband availability in as far as data flow rates, audio and video streaming, for wired and wireless applications?
- Current and projected funding levels

- Estimated deliverables in terms of affect on spectrum/bandwidth
- Objective assessment of viability of the program(s)/initiative(s) for application to the NGATS.

The contractor will provide an in-process review of the study findings after the inventory of relevant programs and industry initiatives are defined.

The Government will provide agency contact information not later than 7 days after Task award.

Deliverables and Schedule.

TASK	PAYMENT	SCHEDULE
Bi-weekly reviews	N/A	Ongoing for length of contract
In-Process Review Summary	20% of Contract Value	No later then 60 days from Contract Award
NGATS Spectrum Analysis Report	80% of Contract Value	No later then 180 days from Contract Award

Period of Performance: 180 days from contract award date.

Participant Selection Criteria. Award entity should come from an objective source (non-government, non-industry-specific) with a proven history of success in alternatives analysis, acquisition strategy, technology integration assessment and financial planning/estimates for emerging technology application with an underlying core competency in aviation operations.

Criteria for Acceptability of Deliverables. Pursuant to Section 8 of the NGATS Institute Task Request Award Process, available on the NGATS Institute website.