

WORKSHOP ON NEW ENTRANTS AND COMMERCIAL SPACE OPERATIONS (CSO) IN THE NAT REGION

NAT NEW ENTRANT READINESS (NER) PROJECT TEAM

Colin Scott - Chair

NAT NEW ENTRANT READINESS (NER) PROJECT TEAM

- NAT NER PT born out of NATSPG/57
- **High Level Tasks**
 - Scope the current planned activities including the timelines to launch, their frequency and duration.
 - *Conduct an operational and financial impact assessment of those activities against current commercial and military operations.*
 - Engage with global groups and new entrant sponsors to adopt, where possible common processes.
 - Draft guidance for use by the sponsors of new entrant activities in the NAT.
 - Determine the predicted ongoing demand of new entrant activities and assess the impact on the work of the NAT SPG structure.
 - Propose amendments to NAT SPG Structure, composition or tasks to facilitate the integration of new entrant

NAT NEW ENTRANT READINESS (NER) PROJECT TEAM

- The initial objective of the project team was to gather associated information to ensure as far as possible global harmonisation.
- Information from Australia, New Zealand, United Kingdom and United States used.
- The PT determined that draft guidance for use by sponsors should comprise two elements:
 - increase awareness, through issue of guidance material, of individual NAT member state regulatory processes to be followed.
 - provide advice on engagement and pre-activity operational letter of agreement requirements between the sponsor and Air Traffic Control Unit(s).

NAT NEW ENTRANT READINESS (NER) PROJECT TEAM

- **Scope of New Entrants**
 - Supersonic; Hypersonic; Unmanned Aircraft Systems (UAS)/Drones; Balloons; High Altitude Long Endurance (HALE) and High-Altitude Platform Systems (HAPS)
- **Focus**
 - Due to the desired timeline, the NER PT concentrated on space launch and re-entry operations.
- **Targeted Outputs**
 - Draft guidance to assist those operational and financial planning activities in NAT airspace.
 - Submit proposals to the NAT SPG on how its structure or work program might be amended to govern these requests as part of its routine task.

NAT NEW ENTRANT READINESS (NER) PROJECT TEAM

- **Membership**
 - The PT has 26 nominated participants via NATSPG from Canada, Denmark, Iceland, Ireland, Portugal, United Kingdom, United States, EUROCONTROL, IATA, IFALPA and the ICAO EUR/NAT Office.
 - *Other subject matter experts may also participate, as deemed appropriate by the Project Team.*
- **Meetings**
 - Virtual kick off meeting of the NAT New Entrant Readiness Project Team was organised on 8 December 2021.
 - To date the PT has held 31 virtual meetings

NAT NEW ENTRANT READINESS (NER) PROJECT TEAM

- Initial Considerations
 - PT acknowledged that member states were at different levels of maturity with regard to:
 - Regulatory bodies and organisational structure
 - Development of state regulation for space and High-Altitude Ops
 - Space operations experience
 - The PT determined that given the anticipated growth in New Entrant activities it would be preferable and beneficial to consolidate all operational guidance in a new single NAT Operational Guidance Material for Commercial Space Operations CSO

NAT NEW ENTRANT READINESS (NER) PROJECT TEAM

- DRAFT OPERATIONAL GUIDANCE DOCUMENT
 - The PT developed draft operational guidance based on the United States Letter of Agreement (LOA) format for Space Launches and Re-entry format.

NAT NEW ENTRANT READINESS (NER) PROJECT TEAM

- Review Process

- As part of the NER PT draft material review process the guidance material has been presented to the following ICAO WGs
 - North Atlantic Implementation Management Group NAT IMG
 - North Atlantic Procedure sand Operations Group NAT POG
 - North Atlantic Safety Oversight Group NAT SOG
 - North Atlantic Systems Planning Group NAT SPG

NAT NEW ENTRANT READINESS (NER) PROJECT TEAM

OPERATIONAL GUIDANCE MATERIAL FOR COMMERCIAL SPACE OPERATIONS (CSO) NORTH ATLANTIC REGION

- 1.0 Right to Access Airspace
- 2.0 Managed Airspace Access
- 3.0 Access to NAT Airspace
- 4.0 Commercial Space Application Objective
- 5.0 Application Responsibilities
- 6.0 Launch, Transit and Re-entry Operations Airspace Request with ANSP General Overview
- 7.0 Airspace Management Planning for ANSPs and ATSU's
- 8.0 Airspace Request from LRO Assessment -Perform Airspace Impact Assessment
- 9.0 Coordination and Develop Launch and Re-Entry Mission Plan
- 10.0 Launch and Re-Entry Mission Airspace Integration for ANSPs and ATSU's.
- 11.0 Investigation of Incidents or Accidents
- 12.0 Post Operations
- Appendix A Example Letter of Agreement Template

NAT NEW ENTRANT READINESS (NER) PROJECT TEAM

- Present to NAT IMG/64
- NAT NER PT Recommendations
 - Endorse the new NAT Doc 013 (NAT Operational Guidance Material for Commercial Space Operations CSO)
 - The ICAO Regional Director, Europe and North Atlantic take appropriate action to publish and promulgate the new NAT Doc 013.