

Commercial Space & MDA



Federal Aviation
Administration

Commercial Space

“In 2012, there were three licensed commercial space operations. Since then, there have been 50 additional operations, with as many as 50 more expected this year. Within several years, we could see an average of one launch daily in the U.S. alone.”

“Currently, we accommodate space operations by blocking off, or “sterilizing,” a large amount of airspace. This approach works today because there are so few operations and most take place from only a couple of coastal locations. But as commercial space operations increase, this could potentially create lengthy delays or reroutes for other aircraft. We’re going to have to move from accommodation to integration, meaning that we take into account the needs of all airspace users – just as we are doing with unmanned aircraft.” (February 5th 2016)

- Teri Bristol
ATO Chief Operating Officer

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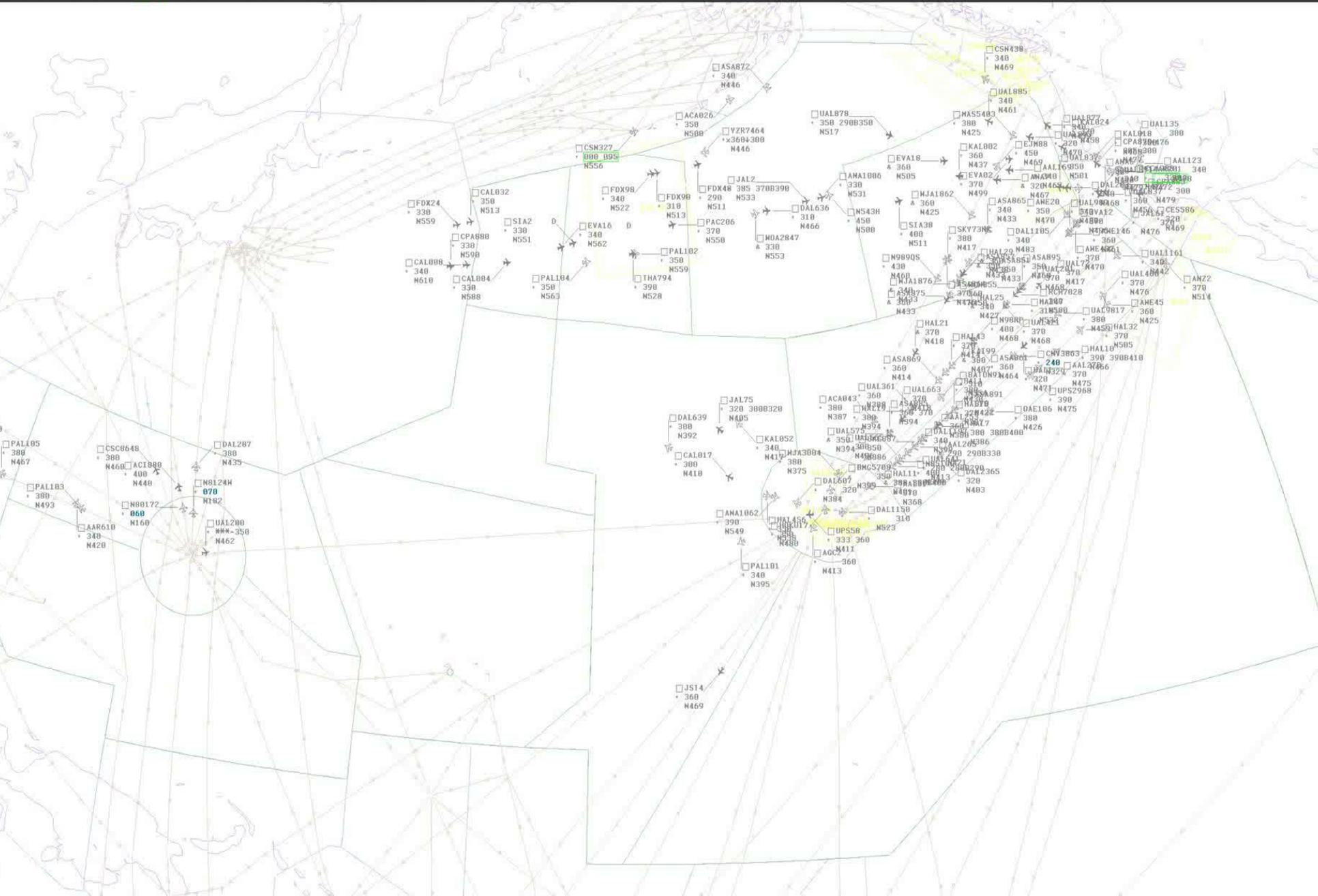
- It is Oakland ARTCC's duty to uphold and work under the ICAO rules set forth through the international community.
- With respect to Airspace restrictions and reservations, Section 3.3 of the IACO Doc 9426 reads:
 - 3.3.1.1 Since the demands on the use of airspace are manifold, some of which are not compatible with civil aviation (e.g. rocket firing) and because there exist sensitive areas on the ground which need protection from possible disturbance by overflying aircraft, it is recognized that there will be a need for States to establish airspace restrictions of varying degrees of severity. In addition, there are aerial activities by specific users or user groups which may require the reservation of portions of the airspace for their exclusive use for determined periods of time.

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- **Doc 9426 Cont'd:**

- 3.3.1.2 Whenever such restrictions and/or reservations have to be imposed, they invariably constitute a limitation to the free and unhampered use of that airspace with the associated restrictive effects on flight operations. It is therefore evident that the scope and duration of restrictions established should be subject to very stringent scrutiny in order to keep undesirable effects to the minimum consistent with the reasons causing their creation. To achieve this, it will be essential to create appropriate methods or organizations, in which all users and providers are adequately represented, for screening requests for airspace restrictions or reservations.

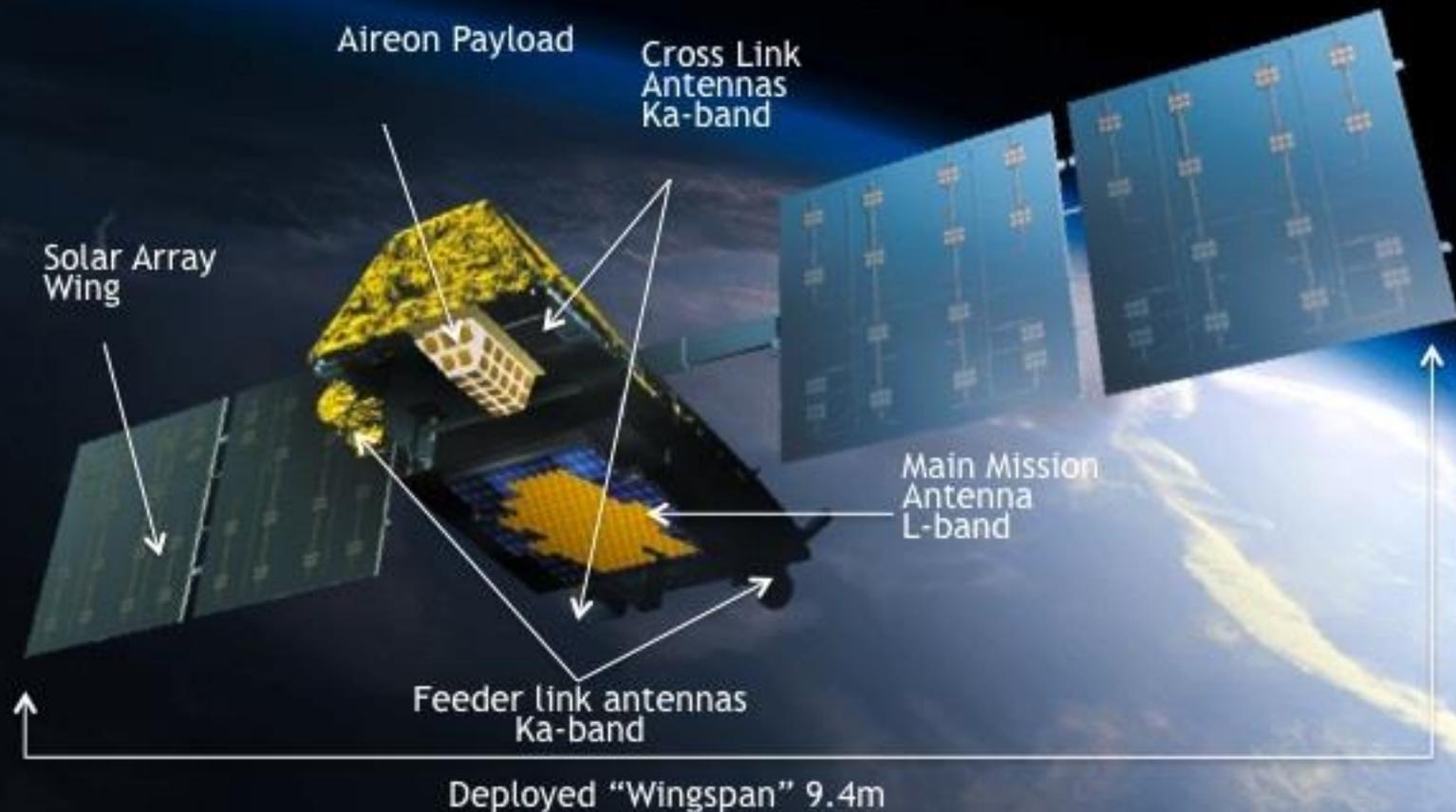
Map	Target	Tools	Lists	Bright	Setup	Wx	All	Geo	AirSp	Nms	Pts	Rts	Grid	Areas	Lists	Tools	FDBs	LDBs In	LDBs Out	Weather
F1	F2	F3	F4	F5	F6	F7	10 SF1	4 SF2	4 SF3	10 SF4	10 SF5	2 SF6	10 SF7	4 SF8	10 SF9	10 SF10	10 SF11	10 SF12	10	10



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- Working with other entities we have been able to reduce the impact area and coordinate a viable solution for all parties.
- With the amount of airspace requested, further coordination is apparent. Oakland Center requires the Airspace reservation data 30 days prior to the recovery and or launch.

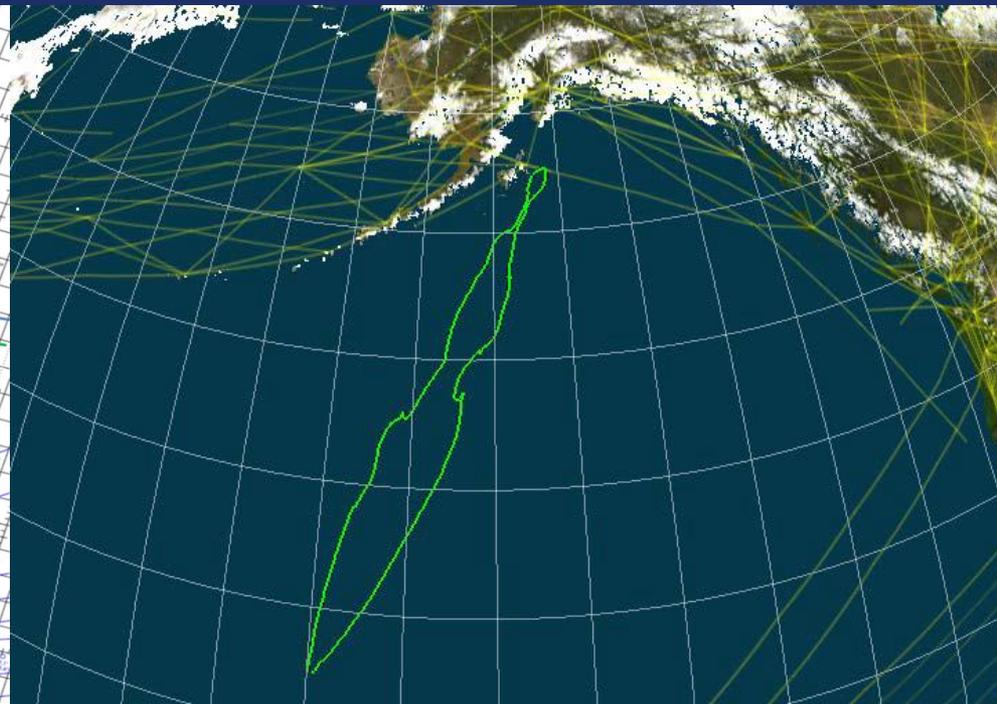
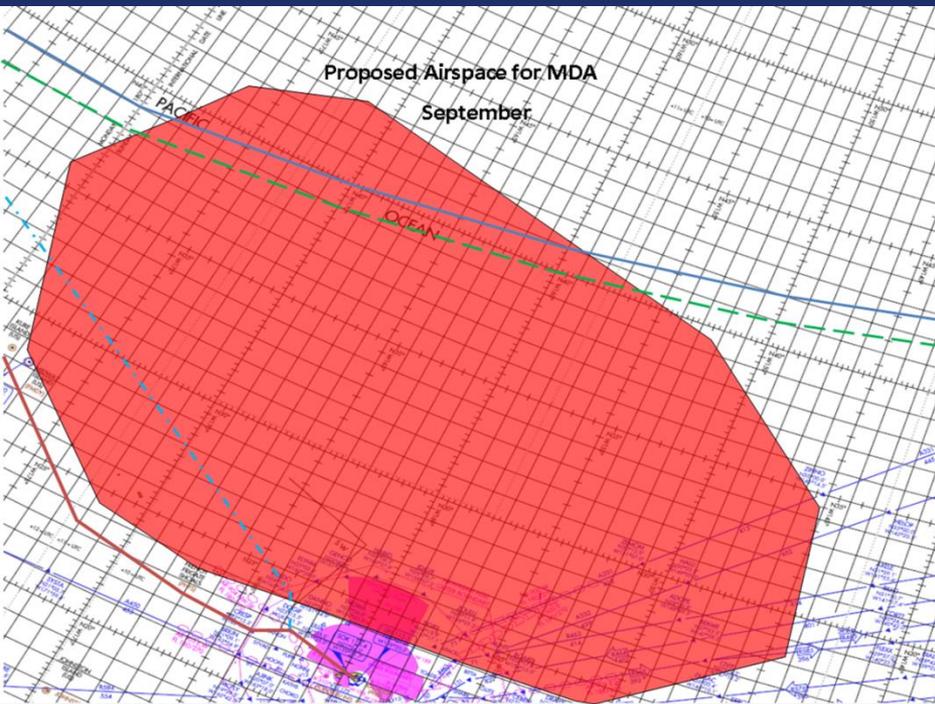
IRIDIUM NEXT SB/ADS-B



Weight: approx. 860 kg Stowed Dimensions: 3.1m x 2.4m x 1.5m

MDA

- MDA 5 missions this year. (Potential for 1 to get pushed forward into early 2018)
- Working with MDA on future missions that range out to FY20. ZOA/ZAN meeting with MDA in February 2017
- Thank you to PMRF and Vandenberg for their continued support.



Commercial Space

- **Oakland Center will continue to work with the different Commercial & DOD operators in the Pacific to reduce the impact of all space activities to the users while working to ensure that the parties involved can accomplish their missions.**
- **The meeting is invited to note the information presented.**



Discussion

