



Iridium
Partner
Conference

Iridium NEXT



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Outline

- The Iridium advantage
- Current constellation status
- Iridium NEXT – All Systems Go



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Iridium NEXT Ensures Iridium's Long Term Competitive Advantage

- Iridium's satellite network provides a superior and differentiated experience for our customers
 - A unique LEO constellation sets Iridium apart from MEO and GEO systems
 - Shorter distance to satellites = a better customer experience
 - Cross-linked and overlapping "mesh" architecture
 - Superior availability, efficiency, flexibility and reliability
 - Near-polar orbit constellation coverage

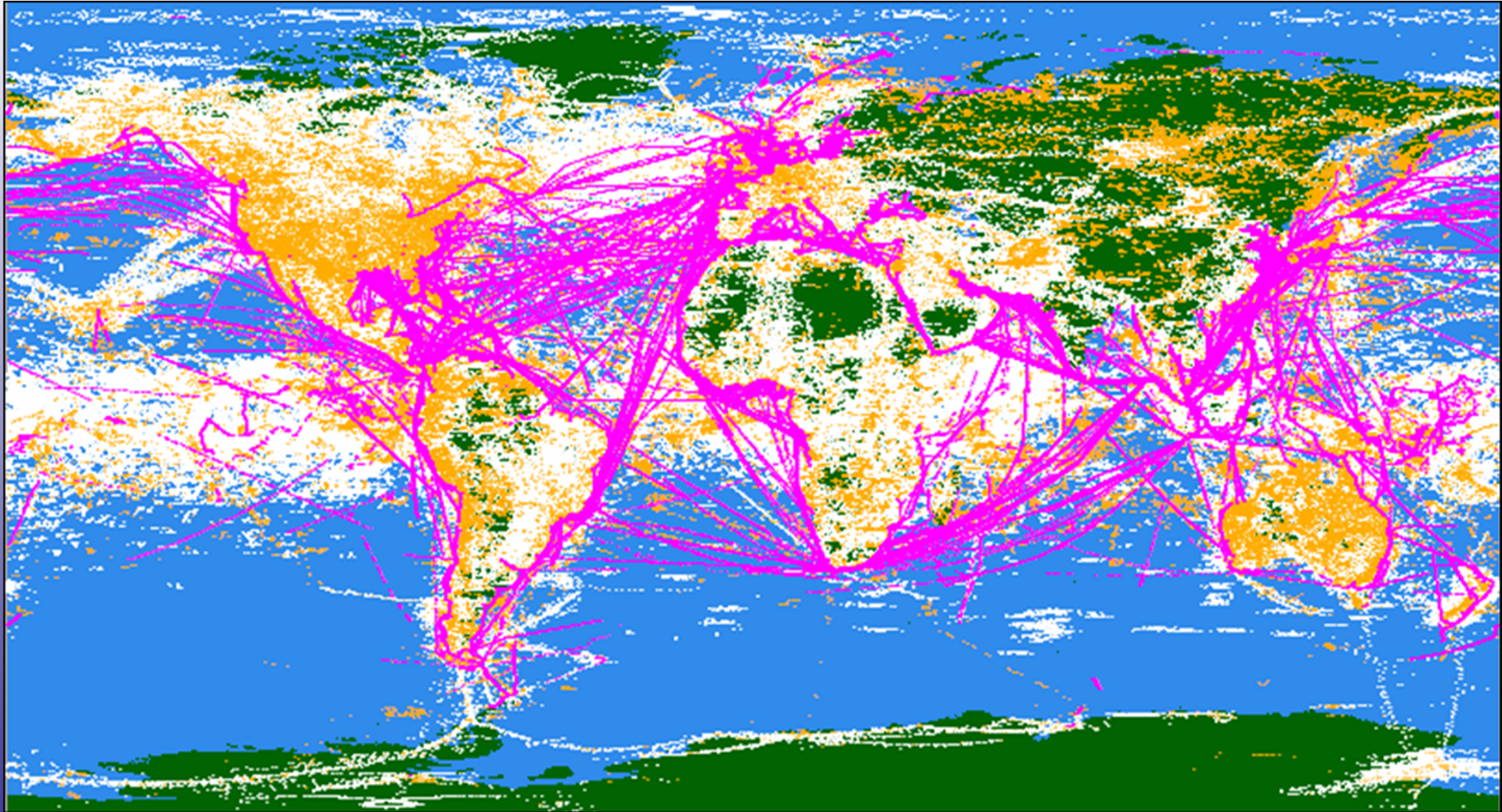


Iridium Everywhere

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Iridium, Everywhere



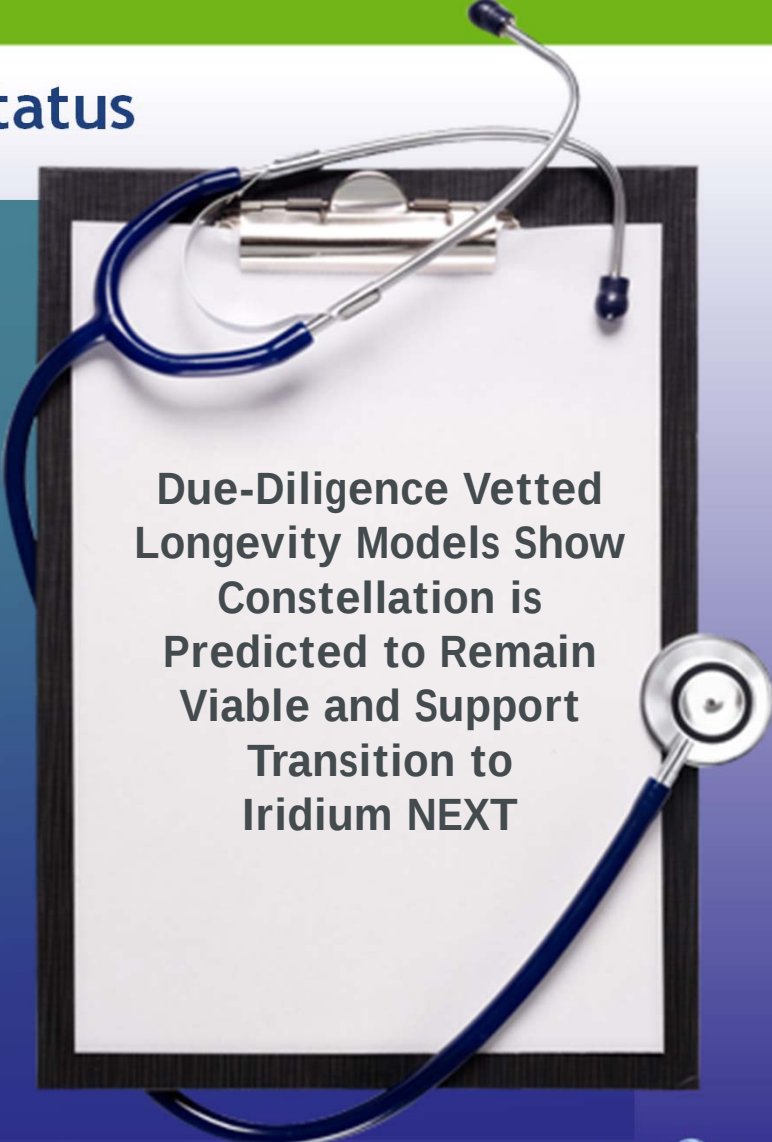
SBD = White; Voice = Orange; OpenPort = Purple

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Iridium Current Constellation Status

- Iridium uses sophisticated statistical models to forecast the expected lifetime of the constellation, accounting for:
 - Current state of health of all Iridium satellites (down to component level)
 - Future expected random component failures
 - Future expected long term wear-out effects on critical spacecraft mechanisms and batteries
- Critical component models have been validated by original component suppliers



**Due-Diligence Vetted
Longevity Models Show
Constellation is
Predicted to Remain
Viable and Support
Transition to
Iridium NEXT**

Current Constellation Health Risk Assessment

- Our current constellation remains healthy, is forecasted to be viable for years to come and is supported by in-orbit spares
- Planned Iridium service improvements through 2016

End-of Life Source	Status / Assessment	Impact to Iridium Longevity?
Expendables (e.g. propellants)	Fuel load in operational satellites expected to last until Iridium NEXT deployment	Unlikely (plenty of fuel)
Wear-Out Mechanisms	Modeling indicates that component wear-out will not significantly affect constellation until at least 2017	Eventually (spares sufficient through Iridium NEXT)
Radiation	Recent comprehensive ground testing indicates that total dose radiation on key parts should not be an issue	Unlikely (we are hardened against it)
Orbital Debris	New operational regimen deployed with U.S. Air Force to monitor all significant debris near current constellation	Unlikely (partnering with Air Force)

What Is Iridium NEXT?

- Completely replaces the current constellation
 - Updates the space and ground systems with new features and capabilities
- Retains 66 satellite LEO architecture
 - Supported by 6 in-orbit spares and 9 ground spares
- Scheduled deployment between early 2015 and 2017
 - 8 Falcon-9 launches (9 SVs/launch)
- Deployment approach designed to provide service continuity and backwards compatibility
- Significant advantages including expanded capacity, higher data speeds and ability to host payloads



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Planned Evolution to Iridium NEXT Constellation

- A continuous and methodical evolution from the current Iridium system to Iridium NEXT
- Customer products evolution — building on a strong track record of new and enhanced products since 2001
- Customer services evolution — new and advanced data services not included in the current constellation design
- Ground system evolution — including significant upgrades to commercial gateway and satellite network operations center (SNOC)
- Incremental one-for-one replacement of current constellation satellites with Iridium NEXT satellites
 - Continuity of service and backward compatibility are paramount



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Backward Compatibility

- There is no greater **priority** to Iridium than ensuring a smooth transition to Iridium NEXT
- Incremental **one-for-one replacement** of current satellites with Iridium NEXT satellites
- Backwards compatibility to all subscriber **devices and solutions** is paramount
- Iridium NEXT backward compatibility plan is **critical** to new services and capabilities
- Iridium NEXT is well poised to **enhance**:
 - Speed
 - Capacity
 - Capabilities of Iridium-enabled connections



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Iridium NEXT Services Evolution

- Iridium NEXT architecture and new digital technology provides enormous flexibility for new services
- Current Iridium Legacy Services will be supported by the Iridium NEXT architecture
 - Legacy Services will be evolved to provide improved data rate and performance
- New types of Iridium NEXT-unique services expected to much higher data rates and capabilities

Legacy Services	Data Rates	Iridium NEXT Supportable Services	Data Rates
Voice	2.4 Kbps	Voice (MOS 3.5)	2.4 Kbps
Circuit Switched Data	2.4 Kbps	L-Band Handset Data	9.6 - 64 Kbps
SBD	Low Data Rate	SBD	Bandwidth on Demand
Iridium OpenPort Maritime/Land	<128 Kbps	Iridium OpenPort Maritime/Land	128 - 512 Kbps
Iridium OpenPort-Aero	<128 Kbps	Iridium OpenPort-Aero	128 - 512 Kbps
New Services:		L-band High Speed	512 Kbps - 1.5 Mbps
		Ka-Band Portable and Transportable	8 Mbps
		Broadcast	64 Kbps

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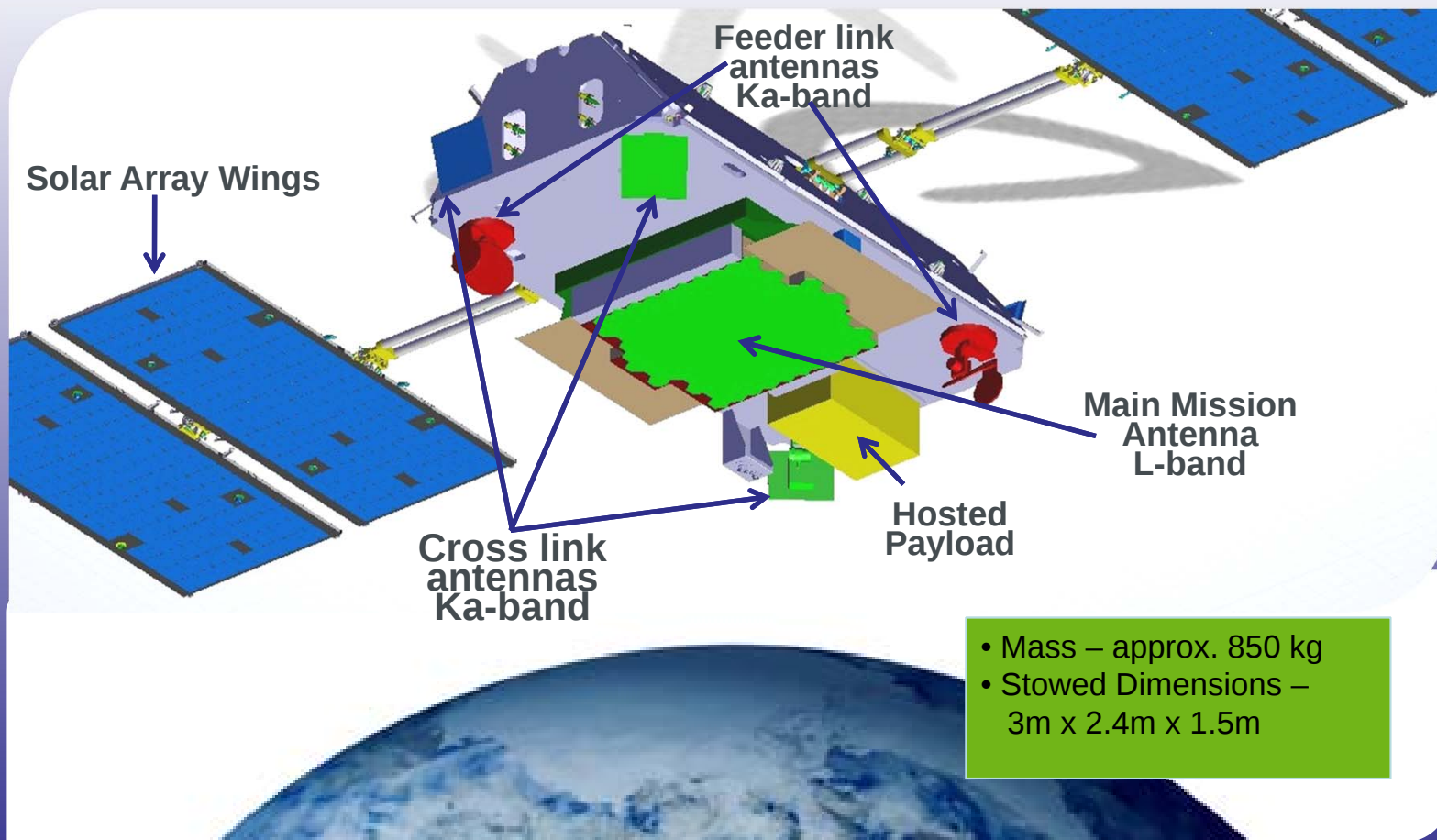
A World Class Development Team is in Place



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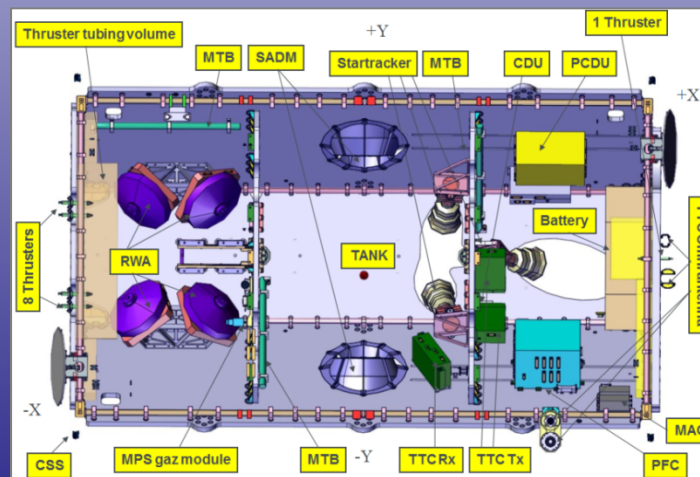
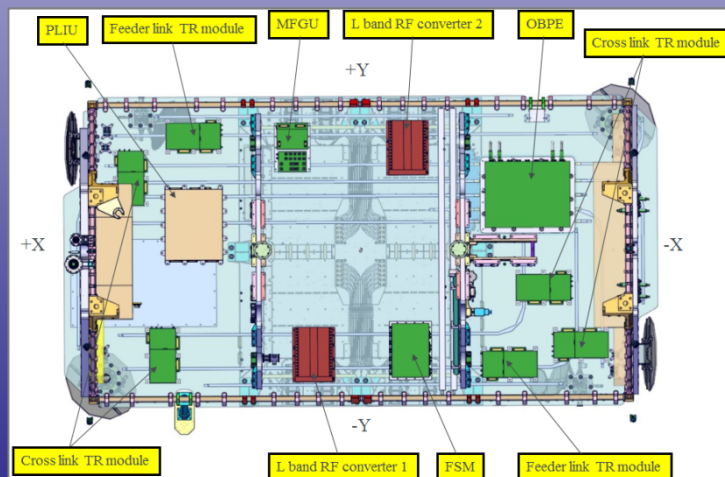
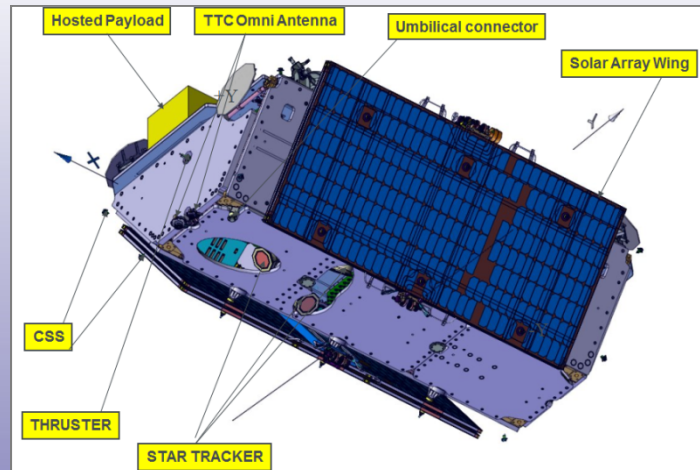
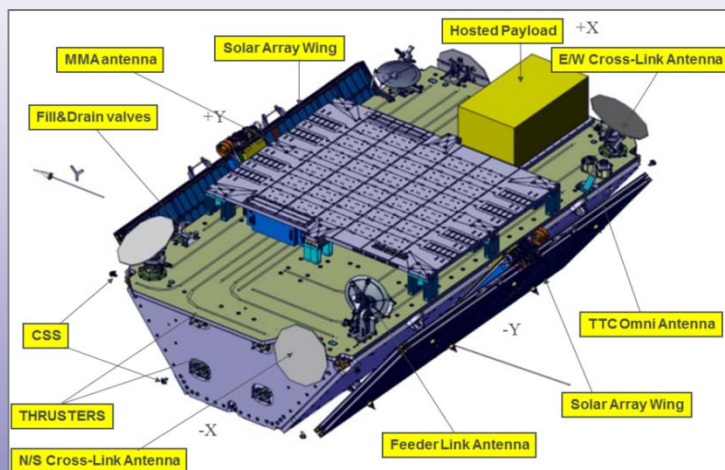


Iridium NEXT Satellite Configuration



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Iridium NEXT Satellite Development is in Full Swing



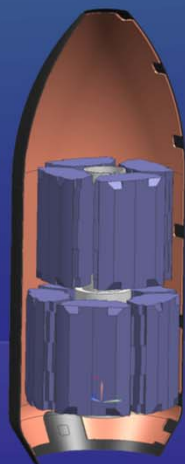
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Launch Vehicle Portfolio Offers Flexibility

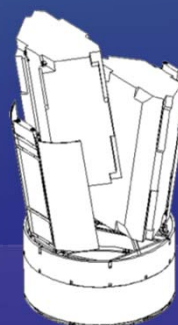
FALCON 9 v1.1 (B2)

- SpaceX, USA
- Launches 9 Iridium NEXT satellites
- Launch Site: Vandenberg Air Force Base, CA USA
- Two-stage EELV-class launch vehicle with 2 Successful flights to date
- Over 15 F9 flights scheduled before Iridium NEXT first launch



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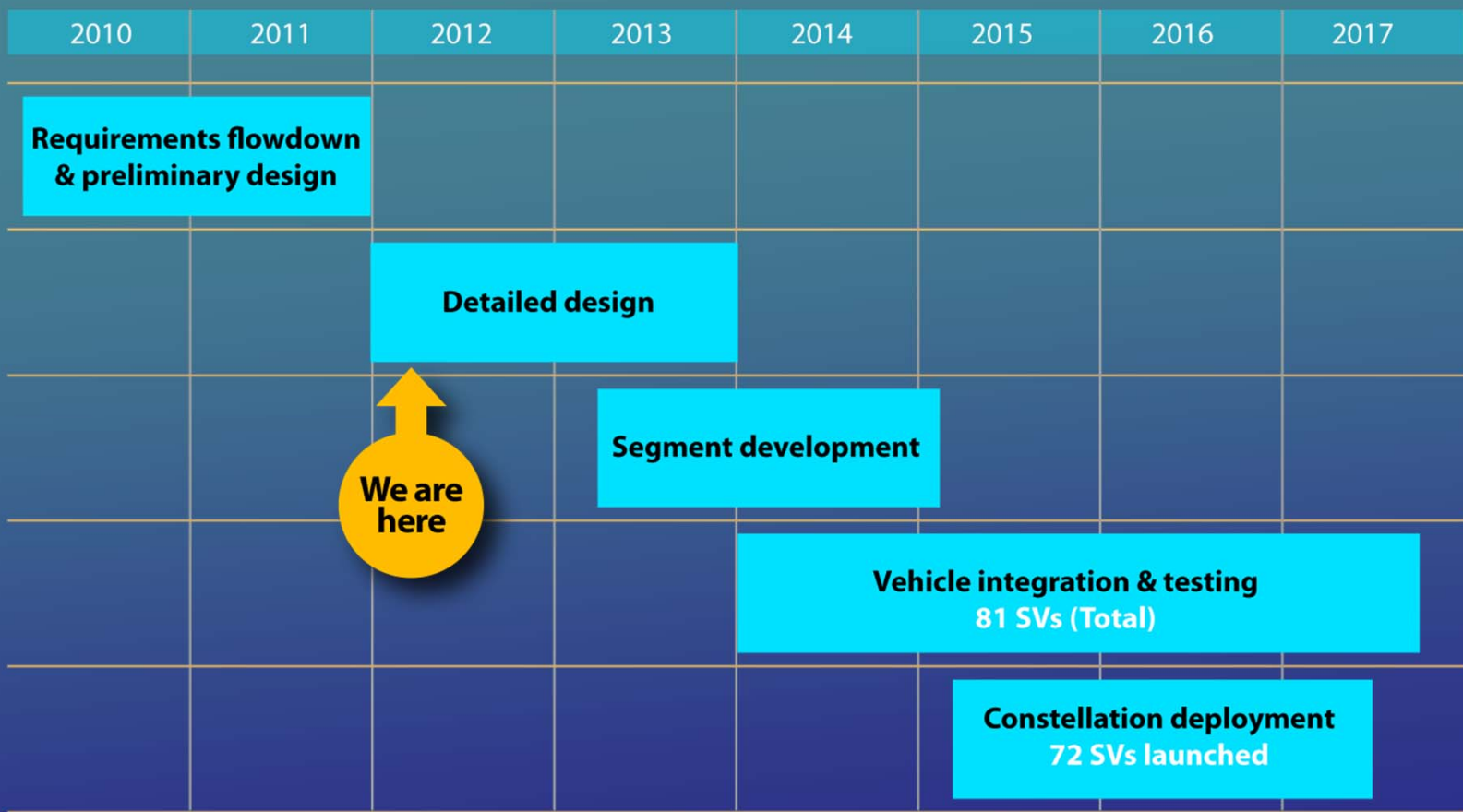
- Kosmotras, RU/UKR
- Launches 2 Iridium NEXT satellites
- Launch Site: Yasnny, Russia
- SS-18 ICBM used as a commercial launch vehicle
- Over 50 years of experience



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Iridium NEXT Development Schedule

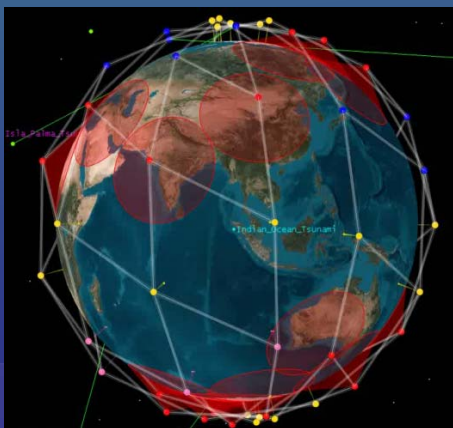


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Iridium NEXT Hosted Payload Accommodation

- Hosted payload capability is being designed into every satellite
- Provides unprecedented geospatial and temporal coverage
 - Low latency – Real-time relay of data to and from payloads in space
 - User control – Continuous 24x7 data collection and payload access
 - Cost-effective – Capability at a fraction of the cost of a dedicated mission
 - Exclusive – No other opportunity like this is likely to be available for decades



Iridium NEXT Hosted Payload Allocated Accommodations

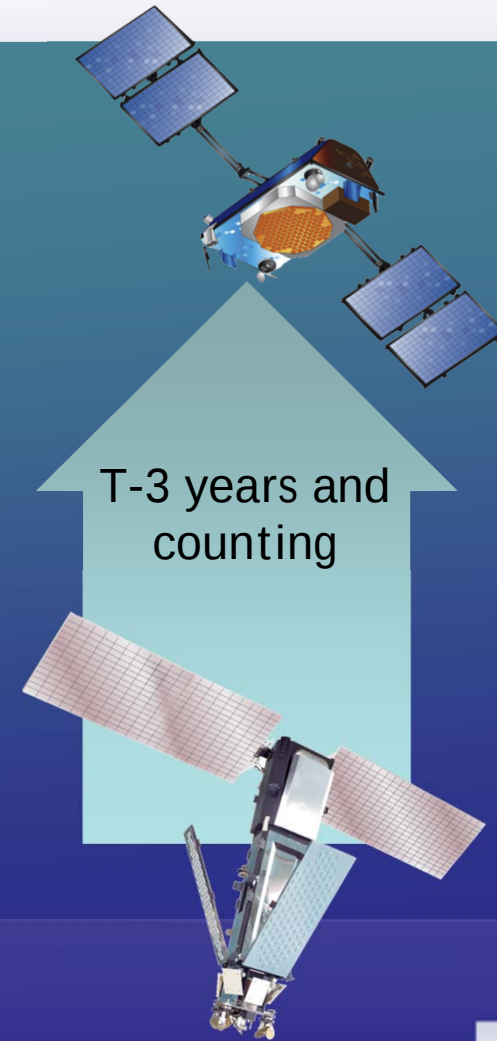
Weight	50 kg
Payload Dimensions	30 x 40 x 70 cm
Payload Power	50 W average (200 W peak)
Payload Data Rate	1 Mbps peak, Orbit average ~100Kbps

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Iridium NEXT: Coming Soon To A Planet Near You!

- Superior network architecture retained and provides a sustainable competitive advantage
- Healthy current constellation supports ongoing growth and a managed transition into the Iridium NEXT era
- On schedule development plan for Iridium NEXT
 - Exciting new Iridium NEXT unique services plus backwards compatibility with existing customer devices and services
- Iridium NEXT provides meaningful, additional opportunities to support ongoing and future growth



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