

# COMSPOC AND THE COMMERCIAL SSA MARKET

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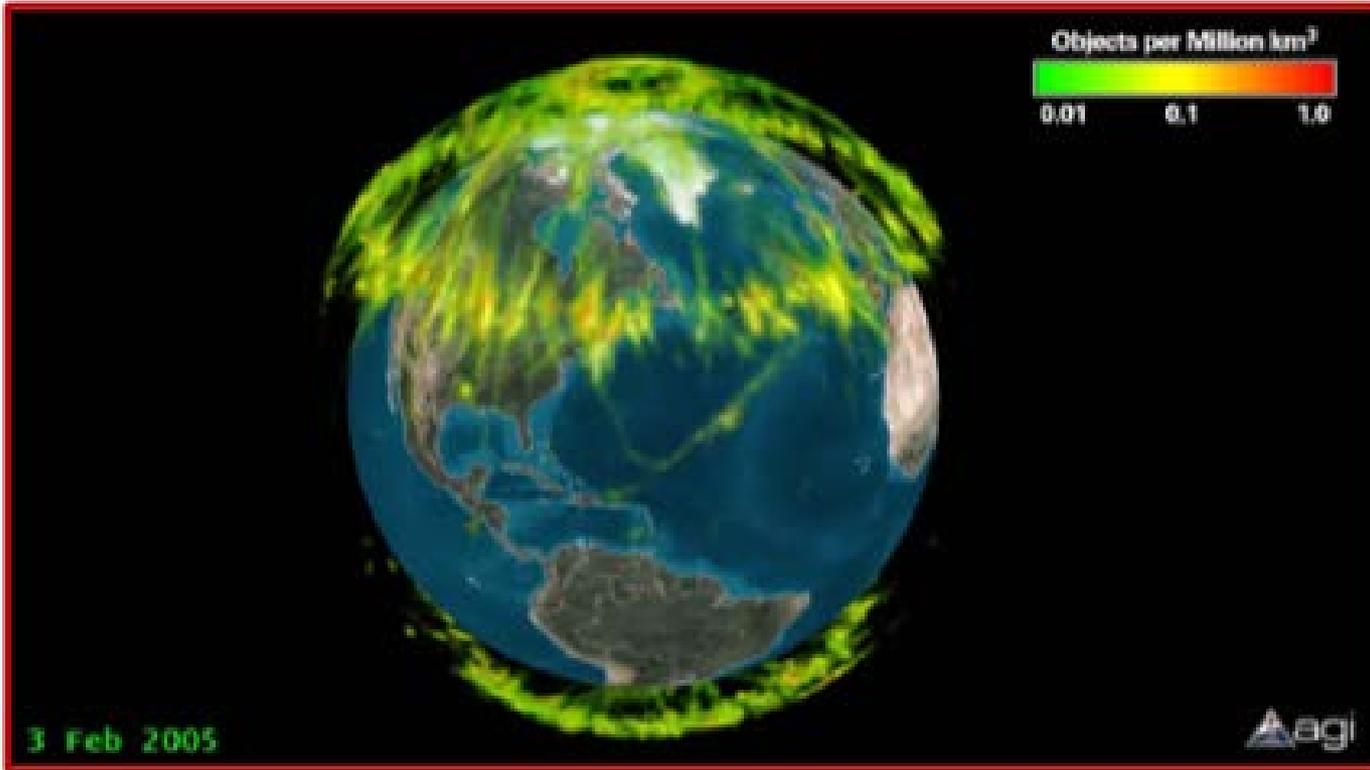
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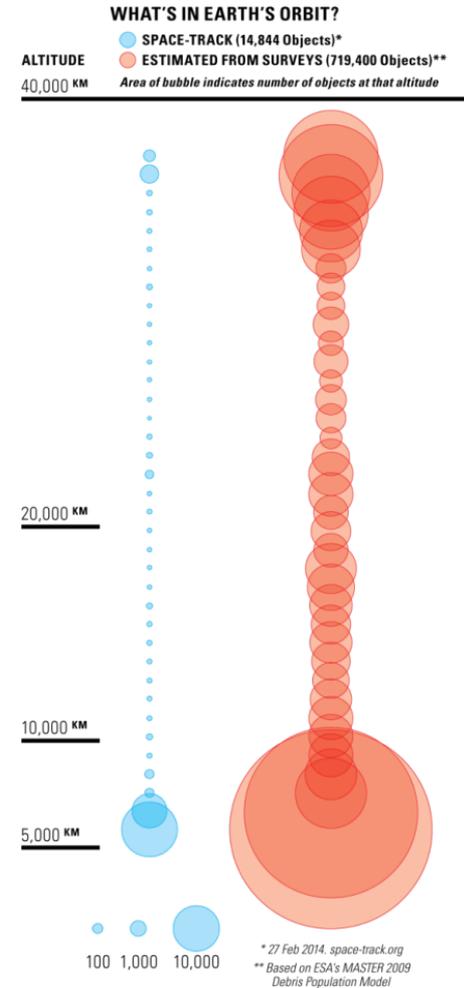
# Outline

- Why SSA as a new business area
  - Debris context
  - Market landscape
- How the ComSpOC initiative is developing
- Non-traditional SSA data source development
- ComSpOC current and future service offerings

# Debris context



Spatial density chronology: 2005-2014

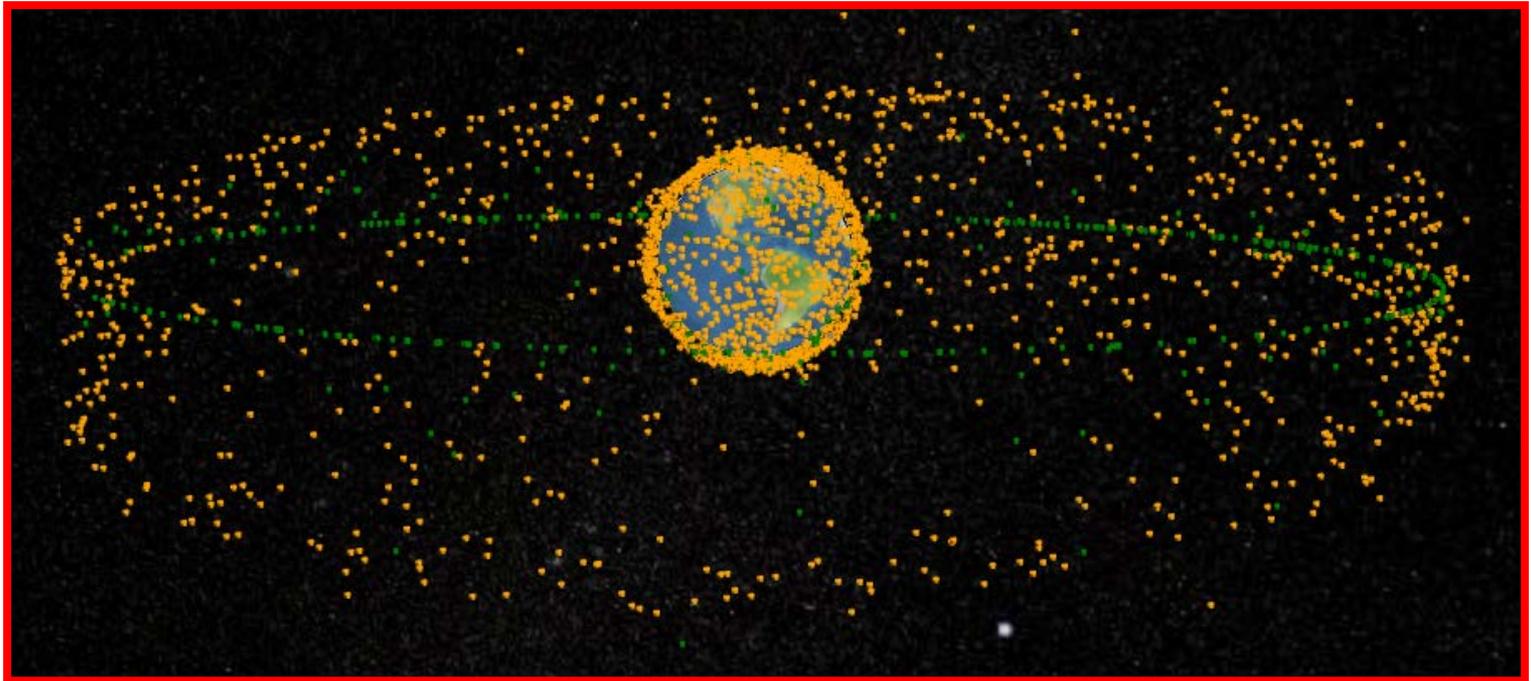


# SSA market landscape

- US Government budgets declining while SSA mission is growing
- SSA services can be provided commercially and at much lower price points
- Moore's law steadily advancing:
  - Space is accessible and becoming mainstream
  - Market demand for data that can be gathered from space
  - Mature, commercially available sensor technologies
- Space debris threatening the viability of all space activities
- AGI has the only commercial catalog processing software numerically validated by the US Air Force
- AGI plans to make a commercial business out of SSA

# ComSpOC status update

- Tracking 3,792 resident space objects (RSOs)
  - 100% of geosynchronous RSOs over CONUS
  - ~90% of geosynchronous RSOs



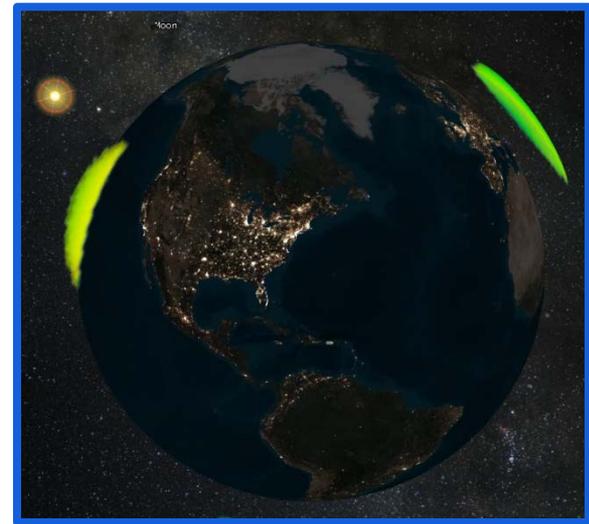
# Non-traditional data sources and processing

## *Current:*

- Telescopes
- Radars
- Passive interferometric RF
- Operator data
- Space based
- DLSRs
- Differential measurements

## *Future:*

- LEO optical
- Short wave IR
- Passive coherent location
- Laser ranging



# Partial Product List

- **Orbit Determination**
  - High Definition Ephemeris (HiDEph) and covariance
- **Maneuver Detection**
  - Dormant RSO monitoring
  - Active object monitoring
  - Patterns of life
- **Radio Frequency Interference**
  - Geolocation support
- **Photo and radio metrics**
  - Light curves
  - Radar curves
- **Launch & Early Ops**
  - Nominal LV performance
  - Characterization
  - New payload tracking
  - New payload CA
- **Flight Safety**
  - Neighborhood watch
  - CSO monitoring
  - Maneuver threat analysis
  - Premium CA screening
  - Avoidance maneuver planning

# THANK YOU

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