NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

SAFETY of NAVIGATION STRATEGY

NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY
UNITED STATES OF AMERICA

PURPOSE

Geospatial intelligence (GEOINT) support to Safety of Navigation (SoN) is a core, statutory mission of the National Geospatial-Intelligence Agency (NGA). This strategy will inform operational, programmatic and budget decisions to improve NGA's SoN mission capabilities through 2027. Its tenets provide the basis for supporting strategies and implementation plans by the three established SoN domains — aeronautical, maritime and geomatics — as well as other SoN mission-enabling organizations.[1]

VISION

NGA is the trusted source of global, authoritative SoN content with assured delivery in operationally relevant timelines and formats.

MISSION

Provide authoritative geospatial data, information, products and services to enable the safe and efficient movement within the air and maritime domains, including geomatics information essential to accurate global positioning and navigation in the land, sea, air and space domains.

IMPERATIVES

To fully achieve the SoN vision, our content must be relevant, accurate, usable and timely.

- Relevance is determined by the relationship of our output to the needs of our customers to achieve national security, defense and civil objectives.
- Accuracy is determined by the quality and integrity of our data, information, products or services.
- Usability is determined by the standardization, discoverability and interoperability of data, information, or products for Department of Defense (DOD) and intelligence community users.
- Timeliness is determined by both the content currency and the speed of delivery to the customer.

CHALLENGES

Four main challenges must be addressed to enable progress towards satisfying SoN mission imperatives — demanding new, innovative programs or the acceleration of existing efforts.

- **Meeting Global Requirements:** Manpower and system constraints limit our ability to meet the expanding requirements of military Services and Combatant Commands. This production gap is exacerbated by an increasing volume of source material.
- **Maintaining Quality Standards and Data Integrity:** It is difficult to maintain high-quality standards while increasing production capacity. Cyber security is a growing threat and presents a risk to information assurance throughout content production and delivery.
- **Moving to Data-Centric Production:** We still publish hard-copy products and text-based information to meet customer requirements. This approach hinders our ability to move our products to a digital environment, synchronize digital and hard-copy products, or meet modern international standards and emerging operating methods. It is clear we need to migrate fully to digital products and ensure our customers are able to use them effectively.
- **Increasing Production and Conveyance Speeds:** We are mired by manually intensive and segregated production environments on antiquated systems. These process and information technology impediments cause lengthy delays and growing backlogs.

[1] Refer to NGA's *"Safety of Navigation: Mission Primer"* for further information on the history, scope, customers, partners, content and organization of the SoN mission at NGA

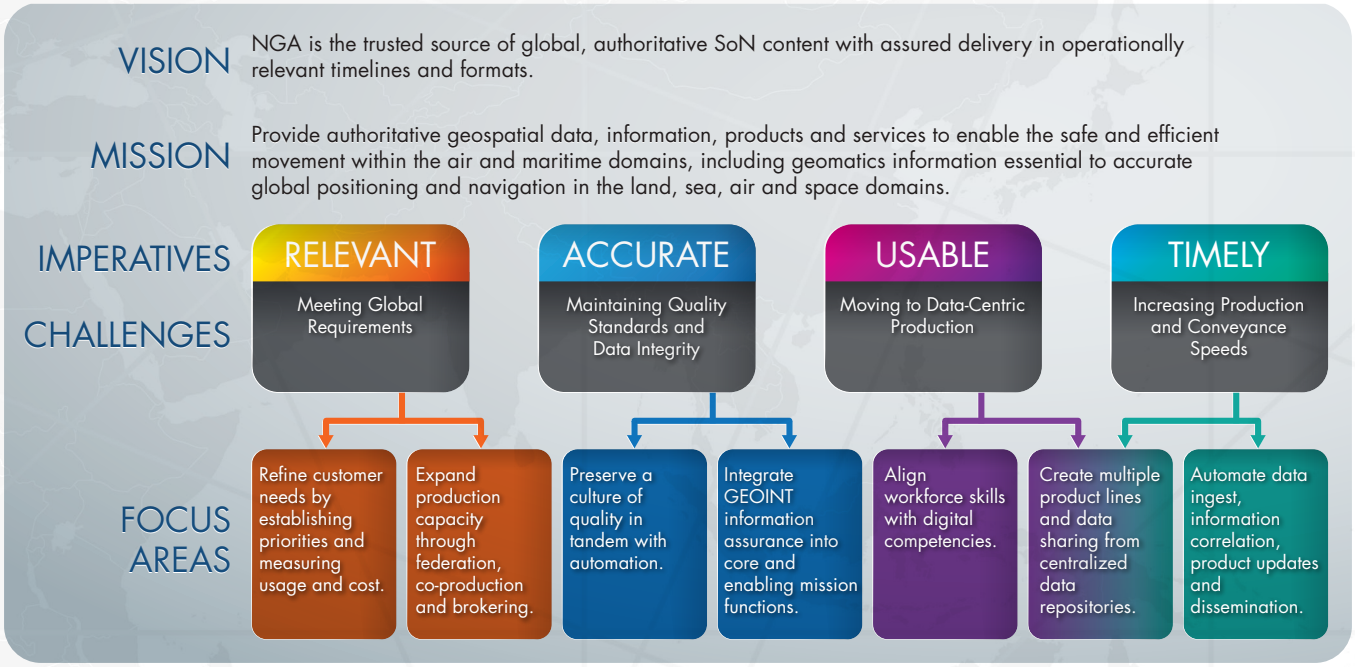
FOCUS AREAS

Seven cross-cutting initiatives will address the common challenges for all mission domains:

- Refine customer needs by establishing priorities and measuring usage and cost.
- Expand production capacity through federation, co-production and brokering.
- Preserve a culture of quality in tandem with automation.
- Integrate GEOINT information assurance into core and enabling mission functions.
- Align workforce skills with digital competencies.
- Create multiple product lines and data sharing from centralized data repositories.
- Automate data ingest, information correlation, product updates and dissemination.

STRATEGIC FRAMEWORK

Because of the critical nature of the SoN mission, DOD invested in additional manpower, production capacity and information technology upgrades. The linkages between the SoN vision, mission imperatives, challenges and focus areas create an integrated approach for directing these investments as well as developing future plans, programs and budgets.



CONSEQUENCES

NGA's SoN mission enables the safe operation of 13,000+ DOD aircraft and 16,500+ U.S. government (USG) ships, vessels and submarines, thus safeguarding millions of USG personnel crewing these platforms. This mission also maintains the earth reference system and enhances position accuracy for more than one billion users of the Global Positioning System. Failure in the SoN mission will result in loss of life, significant materiel costs, a decrease in available military capabilities, operational confusion, reduced public confidence or harm to national prestige; and any of these outcomes is unacceptable. This strategy equips NGA to face the challenges in an increasingly complex world. We are fully committed to implementing it to better serve our customers and mission partners.

Linda R. Urrutia-Varhall, Major General, USAF
Associate Director of Operations
National Geospatial-Intelligence Agency

Questions or comments should be directed to SoN@NGA.mil
Approved for Public Release, 18-067

170927-039 | SEPT. 2017