



International Council on Systems Engineering

Chesapeake Chapter

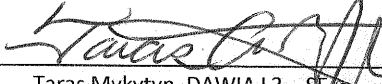
Strategic Plan

2017-2021

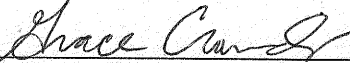
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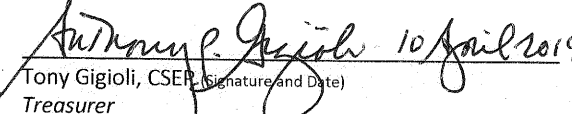
Strategic Plan 2017-2021

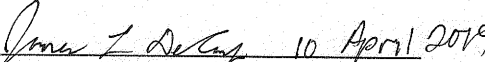
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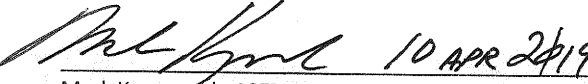

10 APRIL 2019
Taras Mykytyn, DAWIA L3 – SE (Signature and Date)
President

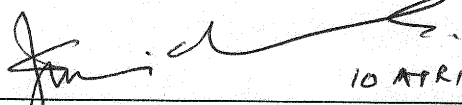

20 April 2019
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President-Elect


11 April 2019
Dr. Grace Crowder, ASEP (Signature and Date)
Past President


10 April 2019
Tony Giglioli, CSEP (Signature and Date)
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10 April 2019
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10 APR 2019
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10 APRIL 2019
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4/10/19
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1. Introduction

The Chesapeake Chapter, one of the chapters in the America Sector, is the Northern and Central Maryland area chapter of the International Council on Systems Engineering (INCOSE), formed to support INCOSE in the expansion of systems engineering understanding, practice, definition, and evolution for the benefit of our members and stakeholders. The INCOSE Chesapeake Chapter of Maryland will continue to support the mandate, strategic goals, and objectives of INCOSE as well as the application of systems engineering to all areas of emerging interest as reflected by the inputs from the chapter membership.

Local industry has in the past been dominated by information technology. This industry has grown and created a meaningful profession for many systems engineers and will continue into the foreseeable future. With the stand-up of the US Cyber Command at Fort Meade, cyber security will likely dominate the systems engineering landscape over the next several years. Other areas of interest include: integration of systems, the Internet of Things, Critical Infrastructure Protection (CIPR), and transportation systems to include public issues such as mass transit; energy conservation through proper analysis of new energy schemes such as wind power; survival of chemical, nuclear, biological events; resiliency of communities, and control of civil disorder.

These issues are likely to remain as topics of interest to systems engineers, employers and the general public. System engineers have a leading role to play in bringing logic and discipline to these systems and programs. The Chesapeake Chapter's (the Chapter) ability to adapt to our rapidly changing political and social environment could influence major events and provide services to the country that are as yet unimagined. This document defines the strategic plan that the Chapter will use to guide its activities and efforts beginning in January 2016 and continuing through 2020. For budgetary and planning purposes, the Chesapeake Chapter Fiscal Year begins on April 1 and ends on March 31.

This document follows the INCOSE strategic vision described in the "Vision 2025 Report - A World in Motion, Systems Engineering 2025", July 2015. This report is available for download to all INCOSE members free of charge on the INCOSE web site at www.incose.org.

2. INCOSE Mandate

The Chapter Board of Directors has taken care to ensure that the Chesapeake Chapter strategic plan aligns with the latest INCOSE Vision 2025 and the INCOSE International Strategic Plan.

2.1 INCOSE Mission

Share, promote and advance the best of systems engineering from across the globe for benefit of humanity and the planet.

2.2 INCOSE Vision

The INCOSE vision is captured in the "Vision 2025 Report - A World in Motion, Systems Engineering 2025", August 2014. The INCOSE vision is to *inspire and guide* the direction of systems engineering across diverse stakeholder communities, which include:

- Engineering Executives
- Policy Makers
- Academics & Researchers

- Practitioners
- Tool Vendors

This vision will continue to evolve based on stakeholder inputs and on-going collaborations with professional societies.ⁱ

2.3 INCOSE Strategic Goals

1. Provide a focal point for dissemination of systems engineering knowledge.
2. Promote collaboration in systems engineering education and research.
3. Assure the establishment of professional standards for integrity in the practice of systems engineering.
4. Improve the professional status of all persons engaged in the practice of systems engineering.
5. Encourage governmental and industrial support for research and educational programs that will improve the systems engineering process and its practice.

2.4 INCOSE Strategic Objectives

1. INCOSE Customers: Identify, describe, and understand our stakeholders and their systems engineering-related needs. Seek to ensure that our membership strives to both understand the diversity of our stakeholders and the variations in their needs.
2. Products and Services: Identify, develop, provide, and continually improve a diverse and expanding set of products and services that meet or exceed the expectations of our INCOSE stakeholders. Strive to create new and innovative products and services.
3. Communication: Become so publicly recognized and so reliable a source of information about systems engineering development and use, that INCOSE is the primary reference for industry, academia, and government -- and the media.
4. Outreach and Collaboration: Increase membership along with INCOSE's ability to raise awareness of systems engineering principles and increase their application through collaboration, corporate and academic partnerships, and support of related efforts by other technical societies and organizations.
5. Theory, Research, and Education: Identify opportunities for, facilitate sponsorship of, and disseminate rigorous professional research in topical areas that are important to systems engineering and society at large. Seek to expand both the quantity and quality of academic and industrial research that is focused on growing the body of systems engineering theory and knowledge. Promote education and training on the systems engineering discipline.
6. International, National, and Regional Involvement: Become a known and respected presence and resource in the advocacy and support of international, national, and regional initiatives that would benefit from world class systems engineering.
7. Structure and Operations: Evolve INCOSE's structure and operations to effectively and efficiently support a growing membership and constituency.

3. Chesapeake Chapter Mandate

This section contains the Chesapeake Chapter mission statement, vision, strategic goals and strategic objectives. In order to have an executable Operating Plan, this section of the Strategic Plan must be very clear, complete, and as concise as possible.

3.1 Chapter Mission

The Chesapeake Chapter is responsible for the expansion of INCOSE through increased membership both of individuals and organizations. The Chapter is dedicated to improving membership participation through focused programming including: distribution of information, education and development, and the exchange of ideas. The Chapter intends to further the systems engineering reach through augmenting and sustaining this organization which is dedicated to systems engineering excellence.

3.2 Chapter Vision

The Chapter will strive to be recognized locally, regionally and internationally as a world-class systems engineering organization.

3.3 Chapter Strategic Goals

The following goals provide a general roadmap of the Chapter's direction for the next five years. Objectives have been derived (see next section) from these goals, and the intention is that collectively they will be reviewed on an annual basis to determine their continued relevance, probability of successful implementation, and sustained alignment with INCOSE strategic thinking.

1. Provide a regional forum for industry, government, and academic organizations to meet regularly and discuss systems engineering technology, the systems engineering process, its application to present and future technologies, and the management of systems engineering activities.
2. Provide outstanding support to Chapter stakeholders (including system engineers, engineering organizations and systems engineering customers) in their efforts to understand, apply, and support systems engineering in industry, academic, and government domains.
3. Provide stakeholders with education, information, training and exchange of ideas for the application of systems engineering to current and future technical areas of interest for improved job performance and growth opportunities. This includes support of INCOSE's continued efforts to certify systems engineering professionals.
4. Invigorate and grow efforts to support the development and interest in systems engineering among young people to include primary, secondary and college students. Establish student chapters affiliated with the Chesapeake Chapter.
5. Attract and recruit new members capitalizing on the Chapter's convenient location with respect to Defense and Aerospace companies, and other organizations involved in the growing information technology and cyber-security fields. Reach out to other corporate and academic organizations that comprise emerging technical areas such as healthcare, mass transit, energy, bio-medical/technology, and commercial operations.

3.4 Chapter Strategic Objectives

Unlike the goals, our objectives are quantified and time-framed. The Chapter will strive to achieve them within the next three to five years. They are specific and will serve as metrics for determining how well the Chesapeake Chapter is meeting general goals. The objectives include:

1. Make a concerted effort to build the membership base by retaining existing members, reaching out to lapsed members, and recruiting new members. Grow our membership base at a minimum of 20% per year, consistent with the INCOSE International objective to increase membership by 100% over the next 5 years.
2. In addition to maintaining monthly Chapter technical meetings, provide local and regional tutorials and workshops reaching a pace of once per month.
3. Generate more interest among members to participate in the INCOSE Working Groups. Within two years, double the number of Chapter members who are active in a Working Group.
4. Establish a chapter initiative or Special Interest Group (SIG) dedicated to increasing participation among Women Systems Engineers within the Chapter.
5. Maintain annual contributions to the INCOSE Foundation to sponsor the Chapter's Academic and Student outreach to young people interested in pursuing an engineering or technical career through college scholarships offered in the Chesapeake Chapter's name.
6. Establish one Student Chapter affiliated with the Chesapeake Chapter between 2016 – 2020.
7. Expand the Chapter's presence and influence through the implementation of satellite locations in West Baltimore/Woodlawn area and Aberdeen Proving Ground.
8. Participate annually in at least four events, interactions, and meetings that involve Student Outreach to the central Maryland community to include judging robotic competitions and at science fairs, and mentoring engineering and high school students.
9. Build more collaborative relationships with other INCOSE Chapters co-sponsoring at least one annual event such as briefings, panel discussions, technical meetings, workshops and symposia.
10. Establish enduring collaboration efforts with other professional societies, universities, and organizations (e.g., PMI, IEEE) by conducting, on an annual basis, at least two joint initiatives that involve advancing the body of knowledge in systems engineering.
11. Provide ongoing support for INCOSE's system engineer certification efforts in the central Maryland area by facilitating meetings between INCOSE representatives and potential candidates and their firms, sponsoring preparation workshops for engineers applying for certification, and general advertising and promotion of certification activities.
12. Increase the effectiveness of the Chapter's website by supporting the migration of the current Connect files and data to the new INCOSE support system.
13. Develop a more robust process of supporting research and education efforts by Chapter members and their parent organizations to include more successful paper or panel applications for the International

Symposium, research articles in the Systems Engineering Journal, application papers in other refereed journals, and sponsorship of tutorials at the international and regional workshops.

14. Complete an annual Operational Plan that contains specific actions that support the Chapter's strategic goals and objectives.

4. Summary

The Chapter BOD believes that all of the objectives stated in this plan hit the standard of specificity, measurability, attainability, relevance, and time framed. The plan provides a robust roadmap that will serve as a guide to the Chesapeake Chapter companion 2019 Operating Plan which will contain more concrete actions and directions. Questions about this plan should be directed to the President of INCOSE Chesapeake Chapter at president@incose-cc.org.

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