

Preface: APL 80th Anniversary Commemorative Articles

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March 10, 2023, marked the end of APL's yearlong 80th anniversary celebration. In honor of the occasion, the *Johns Hopkins APL Technical Digest* dedicates the following section of this issue to articles commemorating the anniversary.

"APL's Systems Approach to Becoming a Strategy-Driven Organization." APL has long had strategic intent. But during the past decade, a multistep integrated strategy has guided the Lab to a new level of capabilities and contributions. This article, an expanded and updated version of an article published in the *IEEE Engineering Management Review*,¹ tells the story of how APL adopted a systems approach to become a truly strategy-driven organization.

"APL in the Twenty-First Century: A Retrospective on the 1983 Report to the Director." In 1982, APL's 40th anniversary year, a senior group called the APL senior fellows was asked to project what the state of science and technology and the environment surrounding APL might be like at the turn of the century, about 20 years into their future. Their projections were published in a 1983 report. Forty years later, at the end of APL's 80th anniversary year, Harry Charles looks back at the senior fellows' predictions.

"Technology Visions for APL's Centennial." As was done at the Lab's 40th anniversary, for the 80th anniversary, we asked a senior group—the Centennial Task Force, composed of technical society fellows and APL Master Inventors—to predict the major technology trends APL might encounter or influence by its centennial anniversary in 2042. This article details their collective response.

"APL Identifies Two New Defining Innovations." APL has made thousands of critical contributions to national security and space exploration over its 80-year history. Among them are a number of defining innovations: game-changing breakthroughs in technology that have created inflection points in history.² These revolutionary advances have ignited new engineering accomplishments globally, saved lives, and secured the United States against threats at home and abroad. On the occasion of its 80th anniversary, APL named two new defining innovations, its 10th and 11th. This article briefly describes these two breakthroughs.

"APL Achievement Awards and Prizes: The Lab's Top Inventions, Discoveries, and Accomplishments in 2022." For almost forty years, the Lab has honored its staff members' greatest accomplishments with an annual awards program.³ The final article in this special series summarizes the APL Achievement Awards for accomplishments during 2022. These achievements represent a snapshot of the highly innovative activities underway at APL as of its anniversary year.

REFERENCES

- ¹R. R. Luman, T. J. Galpin, and J. A. Krill, "Becoming a strategy-driven technology organization—A case study," *IEEE Eng. Manage. Rev.*, vol. 51, no. 2, pp. 104–119, 2023, <https://doi.org/10.1109/EMR.2023.3246431>.
- ²R. D. Semmel, "Defining innovations," *Johns Hopkins APL Tech. Dig.*, vol. 34, no. 2, pp. 107–113, 2018, <https://secwww.jhuapl.edu/techdigest/Content/techdigest/pdf/V34-N02/34-02-Semmel.pdf>.
- ³E. M. Richardson and K. K. Livieratos, "APL Achievement Awards and Prizes," *Johns Hopkins APL Tech. Dig.*, vol. 34, no. 2, pp. 306–325, 2018, <https://secwww.jhuapl.edu/techdigest/Content/techdigest/pdf/V34-N02/34-02-Richardson.pdf>.