



USAF Uses Arena[®] to Determine Staffing and Make Effective Policy Decisions

Overview

The Analysis Division of the Air Force Personnel Operations Agency (AFPOA) examines a wide range of personnel policy issues, including how the available number of pilots and navigators relates to actual needs.

The Challenges

Availability forecasts take into account the characteristics of more than 18,000 pilots and navigators. Each officer's characteristics determine the likelihood of encountering a certain job-related event and the timeframe in which that event might occur.

Events could include grounding, eligibility for promotion, timing of promotion, separation from the service, retirement, and bonus opportunities.

Clear examination of the interactions between these events, as well as accurate predictions of force inventories, lead to properly performed officer projection ratings. Both factors are important in developing good policy. Additionally, the ratings process is transparent



to everyone involved; the Air Force Directorate of Personnel and the United States Congress can see definitive future pilot and navigator numbers.

By contrast, bad policy decisions arise from inaccurate projections, which result in too few or too many pilots and navigators. An unforeseen shortfall or excess leaves the U.S. Air Force inappropriately staffed in a time of need. In that case, Congress must approve additional funding or change offending policies.

Arena[®]

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The potential cost of improperly projecting the number of pilots and navigators can be in the millions of dollars.

Prior methods of examining events and performing officer projection ratings were accurate, but very cumbersome and difficult to update. The Analysis Division needed a more sophisticated tool to show how changes in various personnel policies would impact the future number of pilots and navigators available.

AFPOA personnel turned to the consultants at Rockwell Automation, who applied Rockwell Software's Arena® simulation software to review AFPOA's process and develop a model that provided a single source of decision logic.

The Deliverables

The consulting effort included developing an Excel front end to make the Arena model as flexible as possible.

The Excel workbook contained several worksheets that defined model run parameters, promotion information, loss rates, and the number of new pilots and navigators to be introduced during each year of the run. The workbook also included multiple parameters important to decision making within the model logic.

By changing the Excel inputs and then running the model, analysts in the Analysis Division are able to forecast quickly how a change in personnel policy would impact the total number of officers in the future.

Twenty-five customized reports created in Excel enable different groups — including creators of USAF personnel policy and rated career field managers — to tailor results to their needs. The reports highlight important information obtained during a model run, allow analysts to see the impact of changing policies, and enable analysts to effectively communicate the results to others.

The Results

With the help of the Arena model, AFPOA can now examine the impact of changing personnel policies and determine accurate projections of available pilots and navigators before actually making a change.

AFPOA analysts can access more output data than they could before the Arena simulation was conducted, and can therefore analyze results from diverse perspectives. Arena enables the analysts to alter and test different scenarios as they manipulate the data to determine realistic policies that avoid unforeseen costs.

For More Information

To learn more about the Arena family of simulation products, visit www.arenasimulation.com. For more information about Rockwell Software, visit www.rockwellsoftware.com.

www.rockwellautomation.com

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