What is ITEP?

U.S. Army’s Improved Turbine Engine Program

ITEP is the U.S. Army’s Improved Turbine Engine Program, created to develop a new engine to replace the GE T700 series engines on all Army Black Hawk and Apache helicopters. The engine will also be used on one or more of the Army’s Future Vertical Lift platforms.

What problem is the Army trying to solve?

Recent combat experience in Afghanistan and Iraq showed Apache and Black Hawk helicopters are power limited on hot days at high altitudes. This—along with ever increasing aircraft capabilities (weight) drives a need for more powerful engines.

How is the Army solving this problem?

The Army is developing a new, more powerful engine to replace the T700. The new engine must deliver 50% more power within the current aircraft nacelles with minimal aircraft modifications.

What’s the Army’s timeline?

The Army plans to solicit Engineering and Manufacturing Development (EMD) proposals towards the end of 2017. The Army will review the both competitors’ preliminary designs and EMD proposals throughout 2018 and is expected to announce selection of a single contractor in early 2019 for EMD and eventual production.

What is the Advanced Affordable Turbine Engine (AATE) program?

AATE was a Science and Technology Development (S&TD) program to mature technologies for ITEP. AATE contracts were awarded to GE Aviation and the Advanced Turbine Engine Company (ATEC). Each contractor designed, built, and tested two engines to demonstrate the viability and readiness of their technologies and design concepts.

What were the AATE results?

Each competitor claimed success and stated the viability of the Army’s program objectives. Actual results are proprietary and were not publicly released.

**Army objectives (T700 baseline)**

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<thead>
<tr>
<th>Objective</th>
<th>Improvement</th>
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<tbody>
<tr>
<td>Power</td>
<td>50% MORE</td>
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<tr>
<td>Fuel efficiency</td>
<td>25% BETTER</td>
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<tr>
<td>Engine life</td>
<td>20% LONGER</td>
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GE T901 for ITEP

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