

2. A gas system is being worked on that controls bolt velocities to a level that will prevent the spring from losing its energy. This solution is not yet in hand.

"Different locking systems are being tried to provide longer receiver and barrel extension endurance. These will also be tested by September but are not as critical to project timing as the action spring.

"The general objectives of the XSG Program are: cost, reduced weight, function, and endurance. Our tests so far indicate that the objectives of endurance and function can be met. The objectives of cost and overall gun weight depend to a great extent on the action spring. The most seriously affected objective would be overall gun weight since the parts that must be added to move the spring amount to approximately 1/4 lb. 83

"The factory cost reduction estimated on our last series of prototypes by Industrial Engineering amounts to approximately \$10 per gun. Some of this would be lost because of the added parts and assembly operations and some of the advantages mentioned earlier that result from design similarity would also be diluted, but at this time the extent is unknown.

"There are four different possibilities that can develop from the tests scheduled for completion in September:

1. The tests can be successful and only minor changes will be needed.
2. The tests will show that the locking system is in need of revision but the action spring is okay.
3. The action spring fails but the locking system is okay.
4. Neither action spring nor locking system is satisfactory.

"The simplified scheduling diagram in Chart XLIV shows the effect of each of these eventualities. It also shows how the XPG schedule has been developed to tie in with the Autoloader."

The meeting adjourned at 10:45 a.m.

*B. K. Daubenspeck*  
B. K. Daubenspeck, Secretary

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