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Detroit Diesel Allison
Division of General Motors Corporation
Indianapolis, Indiana 46206

MASTER

EDR 9648

GAS TURBINE ENGINES AND TRANSMISSIONS
FOR BUS DEMONSTRATION PROGRAMS

Technical Status Report
for Period 28 August 1978 - 30 October 1978

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Introduction

This technical status report is to fulfill the contractual requirements of Contract EM-78-C-02-4867. This status report, the first of the required quarterly reports, is a summary of DDA activities for the effort performed on the procurement of eleven (11) Allison GT 404-4 gas turbine engines and five (5) HT740CT and six (6) V730CT Allison automatic transmissions and the required associated software.

Contract negotiations were conducted with the DOE Chicago contracting office during July/August 1978. Final agreement was reached and a contract signed 28 August 1978. The contract requires the delivery of eleven (11) Allison GT 404-4 Industrial Gas Turbine Engines and five (5) HT740CT and six (6) V730CT Allison automatic transmissions for the Greyhound and Transit Coaches, respectively. Engine and transmission delivery to the DOE will be initiated in April 1979 and will be completed by October 1979. In addition, software items such as cost reports, technical reports, installation drawings and acceptance test data are required. The Master schedules for this program are attached.

All hardware items have been defined and are released for procurement. Engine and transmission hardware is being received, and is approximately 25% completed at this time. The September 1978 Cost Report and engine and transmission installation drawings were delivered to the DOE on schedule. The program is progressing as planned and all items are on schedule for delivering the first engine/transmission at the end of April 1979.



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Engine Status

Detroit Diesel Allison Management was successful in keeping the DOE proposed coach demonstration schedule by advance releasing eight (8) of the eleven (11) GT 404-4 gas turbine engines five months before the engine/transmission hardware contract was signed. Critical long lead hardware for these engines was placed on procurement in early April 1978. The remaining hardware has since been sequentially released at a rate necessary to maintain the required delivery schedule. Upon receipt of the signed contract in late August 1978, DDA proceeded to release the remaining three (3) engines and all eleven (11) transmissions. All hardware required for the eleven (11) engines and transmissions is now on order and specific hardware items are starting to be received.

All five (5) Greyhound configured engines, which have right hand output rotation and an SAE #2 bell housing have been totally defined, the parts list completed and all hardware placed on order. Approximately 60% of engine T5 (the first Greyhound engine) parts are completed. The remaining engine parts are in various stages of completion.

The six (6) Transit configured engines, which have left hand output shaft rotation and an SAE # 1 1/2 bell housing, were defined in late September and early October 1978, the parts lists completed; and all hardware components placed on order.



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Transmission Status

All hardware requirements for five (5) HT740CT and six (6) V730CT transmissions have been ordered. The HT740CT components are scheduled for 12/15/78 availability and V730CT components are scheduled for 2/28/79 availability. Schedule has not been confirmed by the various fabricators as yet, however, it appears that all transmission hardware will be received in time to maintain the engine/transmission delivery scheduled for April 1979.

Deliverable Items

The Monthly Cost Report for September 1978 was delivered to the DOE as per the contractual requirements. The second cost report, for the month of October 1978 has been submitted under separate cover. Submission of this technical status report fulfills the DDA present contractual obligations through October 1978.

Two other deliverable items required during this reporting period were submitted to the DOE. Engine and transmission installation drawings (3 copies) were hand carried to Mr. Al Chesnes of the DOE Washington Office on 9 October 1978. Notice of Energy RD&D Project application to the subject contract was submitted by letter on 14 September 1978.

All required deliverable items through the October 1978 time period have, therefore, been completed on schedule.



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Schedule

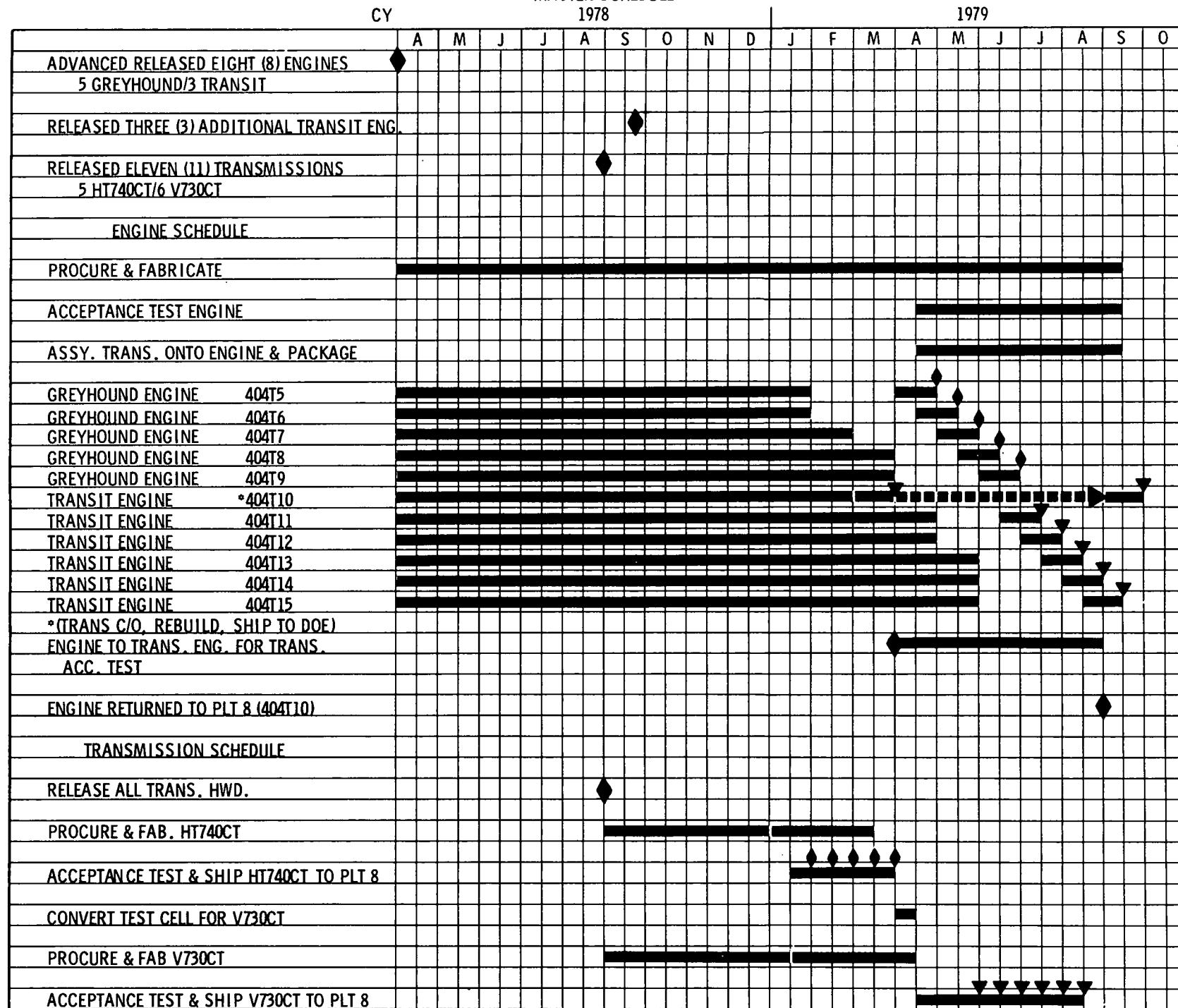
The DDA Master Schedules are attached. These schedules reflect the contractual requirements for both hardware and software. As of this report, all contractual items have been met and all hardware activities are on schedule for delivery of the first powerpack at the end of April 1979.

Spare Hardware

The present contract does not provide for procurement of spare engine or transmission hardware to support the Coach Demonstration Programs. This hardware was intended to be provided in a separate support contract to be negotiated at a later date. Therefore, no additional spare hardware was ordered.

The subject of spare parts should be discussed at the earliest possible date.

DOE ENGINE/TRANSMISSION HARDWARE PROGRAM
MASTER SCHEDULE



DOE ENGINE/TRANSMISSION HARDWARE PROGRAM
MASTER SCHEDULE

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