WAR DEPARTMENT

Office of the Chief of Infantry

Washington

January 2, 1941.

MEMORANDUM FOR: General Lynch.

SUBJECT: Chronology of ¼-ton Liaison Car Development.

I was directed by Colonel Fales to furnish you with a chronological statement, with dates where possible, of the development of the "¼-ton Liaison Car (Bantam)". Exact dates are not all of record because most of the actions were informal, but the salient facts are as follows:

May 17-20, 1940, during a three-day meeting of the Quartermaster Technical Committee on Transportation held at Holabird QM Depot, it became apparent that the ½-ton Weapon Carrier would never be brought down to the weight and silhouette considered desirable by the Infantry. This office had previously made informal but comprehensive studies of various types of small vehicles that might fill the needs of the Infantry on the battlefield. Among these were the "Benz Car", a very light Swiss vehicle, the "Howard Wiley Carrier", and many others. The Infantry Board had also tested the original Bantam passenger car. Some of these vehicles had the required light weight and low silhouette, but none of them had the required cross-country ability. However the IV Section strongly favored further attempts to develop a suitable vehicle in this class, and Lieutenant Colonel W. F. Lee personally presented the matter to General Lynch who approved the principle of super-light, cross-country car.

While the meetings of the Technical Committee were still in progress, Mr. Payne, a representative of the American Bantam Company

appeared and offered to place the facilities of the Bantam factory at the disposal of the War Department for the production of any type of car based on the "Bantam." He was informed that the Bantam had been tried and found wanting, in sturdiness and cross-country ability, and that, to be of interest to the Infantry, such a vehicle must have four-wheel drive, and sufficient power and sturdiness to make it suitable as a "mount" for commanders and staffs, to take the place formerly occupied by the horse. The Bantam Company, a couple of days later, stated that they could and would build the vehicle we wanted, based generally on the "Bantam" as to size. The IV Section of the Chief of Infantry accordingly drew up characteristics and drafted a letter to the Adjutant General requesting the immediate initiation of the development.

The letter to the Adjutant General formally stated the needs of the Infantry, set up the desired charateristics, and requested that the proper agency "procure, without delay, a sufficient number*** * * * * * to equip an infantry regiment * * * for extended field tests." The chief characteristics submitted were:

Maximum height: 36 inches

Maximum weight(net): 1000 lbs.

Cross-country ability and grade ability at least equal to other standard vehicles.

Capacity: at least two men, one machine-gun with accessories, and 3000 rounds of cal. .30 ammunition.

Four-wheel drive.

Face-armor for the driver was also mentioned, principally for the purpose of making it a special vehicle and not subject to the many legal restrictions which hamper the development of vehicles procured by the Quartermaster Corps.

Amphibian characteristics were mentioned as a desirable development.

Efforts to interest the other arms and branches were unsuccessful. Mr. Payne, with the sole encouragement of the Chief of Infantry's Office, did important service in interesting the Chief of Staff's Office, and that of the Secretary of War.

The project was referred by the Adjutant General to the Chief of Ordnance on June 15, 1940, and, by him, to the Ordnance Technical Committee.

The action of the Ordnance Technical Committee (O.C.M. No. 15895, 6-20-40) provided for a sub-committee to visit the American Bantam Company plant at Butler, Pennsylvania, "for conference with the officials and engineers of that company in regard to the military characteristics and design of

1. The Light Command and Reconnaissance Car,

2. The Howie Weapons Carrier,

and to draw up military characteristics for both vehicles. The sub-committee's report stated that it "desires that Major Howie be present at the plant in order that the design of the Howie Weapons Carrier can be considered at the same time." The committee stated, in its report: "The Light Command and Reconnaissance Car represents a new type of vehicle, the proposed military characteristics of which are stated by the Chief of Infantry in reference 1b.

"The sub-committee feels that these military characteristics are satisfactory in general but will give them further study at the conference to be held at the American Bantam Company's plant."

The Committee, including Lieutenant Colonel W. F. Lee, Chief of the A.E.F. Section of the Chief of Infantry's Office, visited the Bantam Plant on June 17, 1940. Its report is incorporated in O.C. M. 15917, 6-27-40.

The Committee adopted the characteristics set up by the Chief of Infantry without substantial change, except, that the maximum weight, unloaded, was raised to 1200 lbs. The provisions for armor and amphibian characteristics were also deferred; that seventy vehicles be built for test and that further development be charged to the Quartermaster General. It also recommended that further development of the "Howie Weapons Carrier" be deferred pending the results of test of the Light Reconnaissance Car.

This report was approved and the project transferred to the Quartermaster General and referred to the Quartermaster Technical Committee.

The Quartermaster Sub-Committee on Transportation met in Washington about July 1, 1940, (Representatives of the Infantry and Cavalry only), and after discussion, approved the characteristics as stated above, and directed that representatives of the arms concerned go to Holabird Q.M. Depot to consider specifications and detailed body-layout.

A few days later, a sub-committee consisting of Lieutenant Colonels W. F. Lee and I. M. Oseth of the Office of the Chief of Infantry, and Major Tompkins, of the Office Chief of Cavalry, went to Holabird and, with representatives of the Quartermaster Generaland of the American Bantam Company, agreed upon a specific layout for the body, as marked in chalk on the floor and based on a conventional bantam chassis; also tested the convential Bantam car, with

various loads and on various grades. From such test, determined that:

The power plant was inadequate.

The wheels and tires were too small.

The frame was inadequate.

The Bantam representative then informed the committee that they already had a more powerful motor already developed and could install it without delay; also that they were prepared to correct the other faults and install a power-driven fromt axle. The committee also agreed that, in order to allow for the installation of the larger motor and the proper type of front axle, the following changes in characteristics would be necessary:

Increase the silhouette at the cowl from 36" to 40"

Increase the maximum weight to 1350 pounds.

The committee directed that a wooden "mock-up" of the body be constructed on the Bantam chassis, for the committee's approval on a subsequent visit.

Within the next two or three days (about July 4 or 5) the sub-committee again met in Washington, and, in consoltation with the representatives of the Bantam Company and technical personnel from Holabird, confirmed the above changes in characteristics, and approved salient points in the specifications.

The same sub-committee visited Holabird again (about July 5 or 6), examined the mock-up, made necessary changes, further considered and gave final approval to the specifications, and recommended that a pilot model be constructed without delay.

On July 9, 1940, in response to tele gram from the Bantam Company and inquiry from the Quartermaster General, the Chief of Infantry advised the Quartermaster General that it was considered impossible to develop satisfactorily and obtain delivery of these vehicles in time for the August Maneuvers, and that undue haste might jeopardize the whole project; that October 15 was considered a satisfactory date for delivery of the test lot to troops.

Pilot model was delivered to Holabird QM Depot about October 1, 1940. Representatives of the Chief of Infantry examined it and witnessed its performance, which was eminently satisfactory. The Commanding Officer, Holabird QM Depot, expressed himself as greatly pleased with its performance and said to Mr. Payne, representative of the Bantam Company: "That is a surprisingly fine vehicle and the only thing I don't like is the fact that we didn't develop it here at Holabird." He also, at the same time, informed the

representative of the Chief of Infantry that he had interested some other manufacturers, Ford and the Willy-Overland Company, with a view to developing other sources.

A representative of the Willys-Overland Company was present, examined the Bantam pilot model closely and made copious notes.

On the same occasion, the Quartermaster General's representative was advised that the Chief of Infantry considered speed in adoption and procurement highly essential, and that he would agree to accept the engineering tests at Holabird in lieu of a service test by the Infantry Board in order to

gain time. He was also warned that the Chief of Infantry would not concur in any deferment or slowing down of procurement for the purpose of enabling Ford and Willys-Overland Companies to produce a pilot model, since to do so would involve unnecessary delay.

The pilot model was demonstrated at Fort Meyers on or about October 6, 1940, before the Chief of Infantry and various other chiefs of branches and general staff officers.

October 22, 1940, tests at Holabird completed and this vehicle recommended for classification as "Required Type, Development Type, Service Test Type". Procurement of 500 from each of Bantam Company, Ford Motor Company, and Willys-Overland Company, in addition to the 70 already authorized, recommended. Infantry dissented on the ground that Ford and Willys-Overland had not submitted any pilot model for test, and recommended that the entire 1500 units be procured from Bantam, to secure uniformity and avoid delay.

October 29, 1940, The Adjutant General approved standardization and directed procurement of 1500 from Bantam Company with funds previously set up for motorcycles with side-cars.

The next several weeks were taken up with repeated protests and counter-proposals from the Quartermaster General, who insisted upon letting contracts to Ford and Willys-Overland. It was also characterized by a number of proposals for changes in characteristics, the apparent purpose of which was to enable certain manufacturers to qualify with a vehicle which was substantially higher and heavier than desired. Several communications from the Chief of Infantry were submitted during this period, resisting the changes proposed, and emphasizing the importance of decreasing rather than increasing weight and silhouette; also insisting that no vehicles be contracted for until a pilot model has been thoroughly tested and approved by the using arms.

November 27, 1940: Test lot of 70 Bantam vehicles completed and shipped, of which 30 go to Infantry Board, 2 to 13rd AT Bn. at Fort Meade, and 2 to Holabird QM Depot, subject to call of the Chief of Infantry for test purposes.

Major G. M. Nelson and two enlisted instructors, Infantry School, sent to Bantam Plant to learn special maintenance of this vehicle for timely instruction of students.

To date (January 1, 1941) contracts have been let by Quartermaster General for 1500 units from Bantam Company and 1500 from Ford. Additional 1500 from Willys-Overland is contingent upon approval of pilot model.

Distribution, on the basis of a total of 4500, was recommended by the Chief of Infantry, to Infantry units as follows:

Per each Infantry Regiment, of 3 Triangular Divisions:

18, to replace 2/3 of allowance of motorcycles.

12, as unassigned vehicles for purely experimental use.

Per each R.A. Anti-Tank Battalion:

12 (experimental).

Per each Motorized Infantry Regiment (4th Division):

39, to replace all motorcycles with side-cars and motor tricycles.

INGOMAR M. OSETH,
Lieutenant Colonel, Infantry.