May 11, 2016

IN REPLY REFER TO:
L-175-16-024

Mr. Jim Silliman
Air Safety Investigator, Sr.
National Transportation Safety Board
490 L'Enfant Plaza East SW
Washington, DC 20594

RE: 1979 Beechcraft HS.125 Series 700A; Serial number: 257072 (NA-0252);
REG: N237WR; Location: Akron, OH; D/A: 11-10-15
NTSB report number: CEN16MA036

Dear Mr. Silliman,

During the NTSB Technical Review for this accident, you announced Parties to the NTSB Investigation had the opportunity to, and were encouraged to, make a submission to the NTSB.

The Textron Aviation Party submission follows:

Synopsis

On November 10, 2015, about 1452 eastern standard time (EST), Execuflight flight 1526, a British Aerospace HS 125-700A, N237WR, departed controlled flight while on approach to land at the Akron Fulton International Airport (AKR) and impacted a 4-plex apartment building in Akron, Ohio. The pilot, co-pilot, and seven passengers were fatally injured; there were no reported ground injuries.

The airplane was destroyed by impact and postimpact fire. The airplane was registered to Rais Group International NC LLC., and operated by Execuflight, as a Title 14 Code of Federal Regulations (CFR) Part 135 on-demand charter flight. Instrument meteorological conditions prevailed at the time of the accident, and the flight was operated on an instrument flight rules (IFR) flight plan. The flight originated from Dayton-Wright Brothers Airport (MGY), Dayton, Ohio, at 1413 EST and was destined for AKR.

Textron Aviation has reviewed the accident investigation information placed in the NTSB Docket, and Textron Aviation agrees the information presented has a factual basis. However, the following issues were noted in the docket material which require clarification:

- The Operations Group Chairman report refers to the aircraft using a serial number of 257072 while the Structures and Systems reports refer to the aircraft using the serial number NA-0252. While both serial numbers correctly identify the aircraft (see attached Hawker Beechcraft Service Bulletin 00-12), the 257072 number is the preferred serial number as this is the serial number used to identify the aircraft in the Federal Aviation Administration Type Certificate Data Sheet. It is also used to identify the applicable manuals for the aircraft.
- The Radar Performance Study, in section D, states, "More recent variants of the type were marketed by Hawker, now joined with Cessna under parent company Textron." This statement is incorrect. It is recommended the following change be made, or the verbiage below added to the final report: Originally developed by de Havilland and initially designated as the DH125 Jet Dragon, the airplane entered production as the Hawker Siddeley HS.125. This was the airplane designation until 1977. Beechcraft Corporation acquired the type certificate in 1994 and produced more recent variants of the Hawker. Today Beechcraft Corporation and Cessna Aircraft Company are both owned by Textron Aviation Inc."

FACTUAL INFORMATION

History of Flight

The aircraft was being used as a CFR Part 135 charter flight. The flight had departed Fort Lauderdale, FL, the day before the accident and flown four legs. The accident flight was the second flight of the second day and had originated at Dayton, OH. The first officer was the pilot flying the accident flight.

Aircraft Examination

A majority of the aircraft was consumed by post-impact fire. The nose and main landing gear were found to be in the extended position. The flaps were found to be deployed to the 45° position. Dirt and brick debris were found throughout the engines.

Flight Instruments

The left side attitude indicator was unreadable. The right side attitude indicator indicated a 5° pitch up attitude and a 58° left bank. The left and right side horizontal situation indicators (HSI) depicted an aircraft heading of 190°. The left HSI course needle was damaged. The right HSI course needle was set to 250°. The right side altimeter setting was 29.95.

Meteorological Information

The reported weather 21 minutes before the accident at KAKR was: wind, 250° at 8 knots; visibility, 1.5 SM with mist; ceiling, 500 feet overcast; temperature, 11°C; dew point, 9°C; altimeter setting, 29.95 inHg. A Piper Cherokee landed shortly before the accident and the occupants reported exiting the clouds at the minimum descent altitude (MDA) for the LOC 25 approach.

Airport Information

KAKR is equipped with an unrecorded common traffic advisory frequency (CTAF) for communication. Runway 25/7 is the longest runway at the airport with a overall length of 6,336 feet. Three instrument approaches, RNAV, LOC, and NDB, exist for Runway 25.

Approach Information
The LOC 25 approach into KAKR has a published MDA of 1,540 feet with a minimum visibility of 1.25 miles based on the category of the accident aircraft.

Crew information
Both crew members had been terminated from their jobs by their previous employers; the captain for failing to attend training and the first officer for unsatisfactory work performance. The crew members held the appropriate certificates, issued by the Federal Aviation Administration, to conduct the flight. Both crew members had been hired by the operator, Execuflight, approximately 5 months before the accident.

The Captain had 6,170 hours of flight time with 1,020 hours of HS-125 flight time and 670 hours of HS-125 Pilot-In-Command (PIC) time. His instrument flight time is unknown. His last instrument proficiency check occurred on 06-01-15.

The First Officer had 4,382 hours of flight time with 482 hours of HS-125 flight time. His HS-125 PIC time is unknown. His instrument flight time is unknown. His last instrument proficiency check occurred on 06-22-15.

ANALYSIS

Aircraft State
No abnormalities were noted during the examination of the aircraft and its components. There was no report by the crew of an aircraft malfunction on the cockpit voice recorder (CVR) transcript. The CVR sound spectrum analysis found evidence that the engines were operating at the time of the accident and increased in power before the accident. This corresponds with witness information.

The reviewable flight attitude instruments depicted an aircraft attitude that matched what was observed in J. Bowers Construction company security video. The right HSI course needle was set to the LOC 25 approach course. The left and right HSI's matched the aircraft's heading and the course needle slots were in the same orientation.

Airport and Approach
The CTAF at KAKR was working at the time of the accident as the crew was able to communicate with the aircraft that had arrived at KAKR before the accident. According to the Operations Group Chairman report, the Federal Aviation Administration tested the localizer and DME related to the LOC 25 approach the day after the accident and both were found to be within tolerance for normal transmitter readings.

Weather
The weather was at, or above, the minimums necessary for the approach to be conducted.

Crew
Based on information in the Operations Group Chairman report, either crew member could have flown the accident flight and meet the requirements of Execuflight's General Operations Manual (GOM).

According to the Operations Group Chairman report, the Execuflight GOM specifically notes that, "certain portions of checklists are identified as requiring the use of the "challenge and response"

method of accomplishment. The Execuflight Standard Operation Procedures (SOPs) call for the pilot flying to initiate the checklist. A checklist was recovered at the accident site. A review of the approach checklist portion indicates that it is a "challenge and response" type checklist. At no point in the CVR transcript does the First Office (the pilot flying) call for the checklist to be initiated. At 14:51:36.3 (all times listed will be CVR times unless otherwise noted) on the transcript, the First Officer says, "can you check can you check (if I got) (everything.) (ignition)." The word "check" does not appear anywhere else in the transcript.

A review of the CVR transcript found no briefing of the approach. The crew discusses various parts of the approach throughout the transcript. When the crew is discussing the approach, it appears they are entering the data into the aircraft's flight management system as opposed to conducting an on purpose briefing of the approach as required in the Execuflight GOM. At 14:40:25.0, the Captain states, "did you do my approach (brief). *** (we gotta go somewhere else right). ***." The First Officer never answers the question.

The crew seems to refer to incorrect information at points when talking about the approach. From 14:33:38.8 through 14:33:48.3 the First Officer asks the Captain what the "minimums" are. The Captain responds, "four seventy three" which is not the MDA. The MDA for the approach is 1,540 feet. The 473 could be reference to the height above ground level of the MDA, which is printed on the approach plate as 473 feet.

At 14:36:06.2, the First Officer states, "from the overcast ah the (minima) is four seventy five. So we should come out at eight hundred. And we should have four hundred feet to go to it." The airport elevation is 1,067 feet making an 800 foot flight altitude impossible.

At 14:36:26.9, the First Officer states, "the minima for this approach fifteen twenty" which is also incorrect. At 14:41:08.8, the First Officer states, "the minima is five hundred and ten." At 14:41.26.5, the crew again references the 473 number. The Captain does not appear to correct or comment on any of the First Officer's misstatements.

Towards the end of the transcript the Captain express concern with how the First Officer is flying the aircraft. Starting at 14:49:20.4, the Captain states the speed of the aircraft is "140." Twenty seconds later the Captain reports the speed is down to "120." At 14:50:02.1, the Captain says, "because we gonna stall. I don't want to sta--." At 14:51:56.6, the Captain states, "on localizer. You're diving. You're diving. Don't dive. Two thousand feet per minute buddy." At 14:52:02.5, the Captain states, "two thousand feet pre minu—don't go two thousand feet per minute." He makes a similar statement at 14:52:07.3. At 14:52:27.3, the Captain states, "okay level off guy." This is followed 5 seconds later by the Ground Proximity Warning System issuing a "pull up" warning.

FINDINGS

The aircraft and aircraft systems were operating normally at the time of the accident.

The aircraft was in an acceptable flap and landing gear configuration for landing.

The flight instruments were configured properly.

The weather at the time of the accident required an instrument approach to minimums.

The equipment at KAKR allowed an approach to be flown.

The accident flight crew was aware of the weather conditions at KAKR.

The crew identified an altitude for the approach MDA which was below ground level.

The aircraft's speed deteriorated and the descent rate increased during the approach.

The aircraft's speed dropped below stall speed shortly after the aircraft reached the minimum approach altitude for the approach.

The aircraft's altitude was allowed to decrease to a point where the Ground Proximity Warning system was activated.

CONCLUSIONS

Textron Aviation believes that the evidence supports the following conclusions:

The crew failed to follow company policy during the approach to KAKR by failing to work through checklists and brief the approach.

The crew demonstrated minimal, if any, Cockpit Resource Management (CRM) techniques during the approach.

The crew exhibited confusion about what the minimum descent altitude for the approach was.

The Captain failed to offer correction when presented with incorrect information by the First Officer.

The crew allowed the aircraft's speed to deteriorate to the point of a stall after passing the Final Approach Fix on the approach as evidence by the activation of the stick shaker.

The crew allowed the aircraft to descend below the minimum descent altitude for the approach as evidence by the activation of the Ground Proximity Warning System.

PROBABLE CAUSE

Based on an analysis of the information obtained during the investigation, the following Probable Cause is put forth:

The crew failed to maintain airspeed while on an instrument approach which resulted in an aerodynamic stall from which they did not recover. In addition, due to confusion about the approach minimum descent (MDA) altitude the aircraft was allowed to descend below the MDA for the approach.

If further assistance is required, please contact me or another member of our Air Safety Investigations Department.

Sincerely,

[redacted]

Henry J. Soderlund
Senior Air Safety Investigator

Textron Aviation – Dept. 175
Office: [redacted] -- Mobile: [redacted] -- Fax: [redacted]
Email: [redacted]

Enclosure

Hawker Beechcraft

OPTIONAL

SERVICE BULLETIN

Hawker

TITLE: **GENERAL/INTRODUCTION - A CROSS-REFERENCE LISTING IS PROVIDED LISTING NORTH AMERICAN (NA) REFERENCE NUMBERS AGAINST SERIAL (CONSTRUCTOR'S) NUMBERS**

SYNOPSIS OF CHANGE

This Service Bulletin has been revised to call out Hawker Beechcraft Corporation supplemental data plate P/N 140-000011-9. In addition, this Service Bulletin is produced in the new format for Hawker Beechcraft Corporation Service Bulletins, including updates to the company name. Technical changes consist of the use of rivet P/N AGS2065-407 or P/N CR3213-4-02 for installation of the data plate, along with a revised Figure 1 to reflect the new information. All relevant technical changes are marked with change bars in the outside margins. No further action is required for airplanes that accomplished the previous issue of this Service Bulletin.

1. Planning Information

A. Effectivity

(1) Airplanes

DH/BH/HS/BAe 125 Series 3 A/RA, 400A, 700A, 800A and 1000A.

If you are no longer in possession of the airplane, please forward this information to the present owner.

(2) Spares

None.

B. Reason

Hawker Beechcraft Corporation (formerly Raytheon Aircraft Company) has been informed that a number of aircraft on the U.S. register only have an NA reference number on the Manufacturer's data plate, and these are not listed in TCDS A3EU.

C. Description

This Service Bulletin is issued as a reference document only. A cross-reference list is provided under Paragraph K. References, where the NA reference number is listed against the aircraft serial (construction) number. The aircraft serial numbers are listed in the TCDS A3EU.

If any aircraft shows an NA number on the Manufacturer's data plate without showing a Serial Number, the corresponding Serial Number (as detailed in this Service Bulletin) should be added to the aircraft log book. If the external data plate shown in Figure 1 does not exist, install supplemental data plate anyway. If desired, a supplemental data plate showing both numbers may be obtained by contacting:

RAPID
10511 E. Central
Wichita, Kansas 67206
U.S.A.
Tele: 316-676-3100 or 1-888-RAPID44
Fax: 316-676-3222 or 1-316-676-3327

Orders for supplemental data plates must be accompanied by a notarized letter from the registered owner requesting the supplemental data plate and supplying the applicable NA number. The supplemental data plate will be sent to the owner by certified mail.

D. Compliance

Hawker Beechcraft Corporation considers accomplishment of this Service Bulletin to be the owner's/operator's option.

E. Approval

The engineering data contained in this Service Bulletin is FAA approved.

This modification is classified Minor per FAA Order 8110.52.

Prior to accomplishment, owners/operators of airplanes registered in countries other than the United States shall consult with their local Aviation Regulatory Authority.

F. Manpower

The following information is for planning purposes only:

Estimated man-hours (including access): 1 hour.

Suggested number of men: 1 man.

The above is an estimate based on experienced, properly equipped personnel complying with this Service Bulletin. Occasionally, after work has started, conditions may be found which could result in additional man-hours.

G. Weight and Balance

None.

H. Electrical Load Data

Not changed.

I. Software Accomplishment Summary

Not applicable.

J. References

Series 3 A/RA							
NA No.	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**
NA700	25134	NA703	25139	NA706	25146	NA709	25163
NA701	25136	NA704	25141	NA707	25160	NA710	25170
NA702	25137	NA705	25142	NA708	25161		

Series 400							
NA No.	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**
NA711	25173	NA729	25200	NA747	25222	NA765	25263
NA712	25174	NA730	25201	NA748	25224	NA766	25265
NA713	25175	NA731	25202	NA749	25225	NA767	25267
NA714	25176	NA732	25203	NA750	25226	NA768	25273
NA715	25179	NA733	25204	NA751	25228	NA769	25275
NA716	25180	NA734	25205	NA752	25229	NA770	25276
NA717	25183	NA735	25206	NA753	25230	NA771	25278
NA718	25187	NA736	25207	NA754	25232	NA772	25279
NA719	25188	NA737	25208	NA755	25233	NA773	25280
NA720	25185	NA738	25210	NA756	25234	NA774	25281
NA721	25186	NA739	25211	NA757	25236	NA775	25282
NA722	25190	NA740	25212	NA758	25239	NA776	25283
NA723	25191	NA741	25213	NA759	25241	NA777	25284
NA724	25192	NA742	25214	NA760	25244	NA778	25285
NA725	25193	NA743	25216	NA761	25237	NA779	25286
NA726	25195	NA744	25218	NA762	25245	NA780	25287
NA727	25196	NA745	25220	NA763	25261		
NA728	25198	NA746	25221	NA764	25262		

Series 700							
NA No.	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**
NA0201	257002	NA0230	257042	NA0259	257083	NA0288	257123
NA0202	257003	NA0231	257044	NA0260	257084	NA0289	257125
NA0203	257005	NA0232	257043	NA0261	257086	NA0290	257126
NA0204	257006	NA0233	257047	NA0262	257087	NA0291	257128
NA0205	257008	NA0234	257048	NA0263	257089	NA0292	257129
NA0206	257009	NA0235	257050	NA0264	257090	NA0293	257131
NA0207	257011	NA0236	257051	NA0265	257092	NA0294	257132
NA0208	257012	NA0237	257052	NA0266	257093	NA0295	257134
NA0209	257014	NA0238	257053	NA0267	257095	NA0296	257135
NA0210	257015	NA0239	257049	NA0268	257079	NA0297	257137
NA0211	257017	NA0240	257045	NA0269	257098	NA0298	257138
NA0212	257018	NA0241	257056	NA0270	257099	NA0299	257140
NA0213	257019	NA0242	257057	NA0271	257110	NA0300	257141
NA0214	257021	NA0243	257059	NA0272	257101	NA0301	257146
NA0215	257023	NA0244	257060	NA0273	257104	NA0302	257149
NA0216	257016	NA0245	257058	NA0274	257105	NA0303	257147
NA0217	257024	NA0246	257063	NA0275	257106	NA0304	257148
NA0218	257004	NA0247	257065	NA0276	257096	NA0305	257150
NA0219	257026	NA0248	257066	NA0277	257111	NA0306	257152
NA0220	257027	NA0249	257068	NA0278	257108	NA0307	257154
NA0221	257029	NA0250	257069	NA0279	257113	NA0308	257155
NA0222	257030	NA0251	257071	NA0280	257102	NA0309	257156
NA0223	257032	NA0252	257072	NA0281	257114	NA0310	257157
NA0224	257033	NA0253	257074	NA0282	257116	NA0311	257159
NA0225	257035	NA0254	257075	NA0283	257117	NA0312	257162
NA0226	257036	NA0255	257077	NA0284	257119	NA0313	257153
NA0227	257038	NA0256	257078	NA0285	257120	NA0314	257164

Series 700							
NA No.	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**
NA0228	257039	NA0257	257080	NA0286	257121	NA0315	257165
NA0229	257041	NA0258	257081	NA0287	257122	NA0316	257167
NA0317	257168	NA0325	257143	NA0333	257188	NA0341	257201
NA0318	257170	NA0326	257144	NA0334	257195	NA0342	257202
NA0319	257171	NA0327	257179	NA0335	257198	NA0343	257204
NA0320	257173	NA0328	257180	NA0336	257191	NA0344	257206
NA0321	257174	NA0329	257182	NA0337	257192	NA0345	257207
NA0322	257176	NA0330	not used	NA0338	257193		
NA0323	257161	NA0331	257185	NA0339	257145		
NA0324	257177	NA0332	257186	NA0340	257199		

Series 800							
NA No.	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**
NA0401	258100	NA0418	258125	NA0435	258157	NA0452	258185
NA0402	258101	NA0419	258126	NA0436	258160	NA0453	258187
NA0403	258102	NA0420	258127	NA0437	258161	NA0454	258188
NA0404	258103	NA0421	258128	NA0438	258162	NA0455	258189
NA0405	258104	NA0422	258132	NA0439	258166	NA0456	258191
NA0406	258105	NA0423	258135	NA0440	258168	NA0457	258193
NA0407	258107	NA0424	258136	NA0441	258170	NA0458	258195
NA0408	258108	NA0425	258137	NA0442	258171	NA0459	258196
NA0409	258111	NA0426	258139	NA0443	258163	NA0460	258199
NA0410	258113	NA0427	258140	NA0444	258172	NA0461	258200
NA0411	258114	NA0428	258138	NA0445	258174	NA0462	258202
NA0412	258117	NA0429	258141	NA0446	258175	NA0463	not used
NA0413	258119	NA0430	258142	NA0447	258173	NA0464	258204

Series 800							
NA No.	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**
NA0414	258121	NA0431	258144	NA0448	258179	NA0465	258205
NA0415	258122	NA0432	258145	NA0449	258178	NA0466	258206
NA0416	258123	NA0433	258147	NA0450	258181	NA0467	258207
NA0417	258124	NA0434	258150	NA0451	258183	NA0468	258209
NA0469	258216	NA0471	258218	NA0473	258221	NA0475	258225
NA0470	258217	NA0472	258220	NA0474	258223		

Series 1000							
NA No.	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**	**NA No.**	**Serial No.**
NA1000	259005	NA1003	259011	NA1006	259015	NA1009	259010
NA1001	259006	NA1004	259013	NA1007	259019	NA1010	259023
NA1002	259009	NA1005	259014	NA1008	259020		

Aircraft Maintenance Manual (AMM) Chapter 20.

K. Publications Affected

None.

L. Interchangeability of Parts

Not applicable.

M. Warranty Credit

None.

2. Material Information

A. Materials - Price and Availability

On application to the following address:

RAPID
10511 E. Central
Wichita, Kansas 67206
U.S.A.
Tele: 316-676-3100 or 1-888-RAPID44
Fax: 316-676-3222 or 1-316-676-3327

B. Industry Support

Not applicable.

C. Airplanes

(1) The following parts required for accomplishment of this Service Bulletin may be ordered through a Hawker Beechcraft Authorized Service Center or RAPID:

Item No.	Part Number	Description	Quantity Per Airplane
1	140-000011-9	Supplemental Data Plate	1
2	AGS2065-407 or CR3213-4-02	Rivet	4

Hawker Beechcraft Corporation expressly reserves the right to supersede, cancel and/or declare obsolete, without prior notice, any parts or publications that may be referenced in this Service Bulletin.

(2) The following materials may be obtained locally:

Material Part Number (Ref. AMM Chapter 20)	Description	Quantity Per Airplane
Item 314 (20-95-301)	Sealant PR1440	As Required
Item 504 (20-95-501)	Alocrom 1200 film treatment	As Required
	Epoxy base primer	As Required

D. Spares

Not applicable.

E. Reidentified Parts

None.

F. Tooling - Price and Availability

Not applicable.

3. Accomplishment Instructions

The following accomplishment instructions are only applicable to operators who are installing a supplemental data plate.

NOTE

Should any difficulty be encountered in accomplishing this Service Bulletin, contact Hawker Beechcraft Corporation at 1-800-429-5372 or 316-676-3140.

A. Airplane

WARNING

Observe all Warnings and Cautions contained in the aircraft manuals referenced in this Service Bulletin.

Whenever any part of this system is dismantled, adjusted, repaired or renewed, detailed investigation must be made on completion to make sure that distortion, tools, rags or any other loose articles or foreign matter that could impede the free movement and safe operation of the system are not present, and that the systems and installations in the work area are clean.

NOTE

The aircraft is not airworthy without the original Constructor's Data Plate.

(1) Referring to Figure 1, gain access to the existing constructor's nameplate, if one is installed.

(2) Position supplemental data plate 140-000011-9 on the aircraft exterior to the dimension shown in Figure 1.

(3) Transfer drill / ream 0.128 / 0.133 in. dia. four hole positions denoted Z from the supplemental data plate to the aircraft.

(4) Deburr all holes and edges, vacuuming or wiping up any drilling debris.

WARNING

Solvents, primers, and paints are flammable and toxic to skin, eyes, and respiratory tract. Skin and eye protection is required. Avoid repeated or prolonged contact. Keep away from flames or sources of heat. Use in a well-ventilated area or respiratory protection may be required.

(5) Restore protective treatment using Alocrom 1200. Allow adequate time to dry.

(6) Apply epoxy base primer. Let dry.

(7) Install supplemental data plate to aircraft using new rivets P/N AGS2065-407 or CR3213-4-02 (qty. 4) and sealant PR1440 (Ref. AMM 20-95-301 Item 314) on mating surfaces.

(8) Ensure all work areas are clean and clear of tools and miscellaneous items of equipment.

(9) Return airplane to service.

B. Spares

Not applicable.

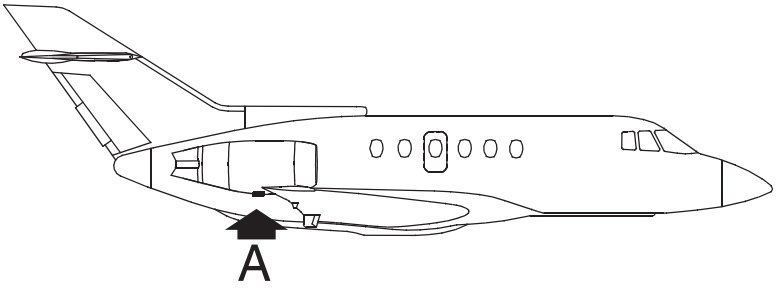
C. Record of Compliance

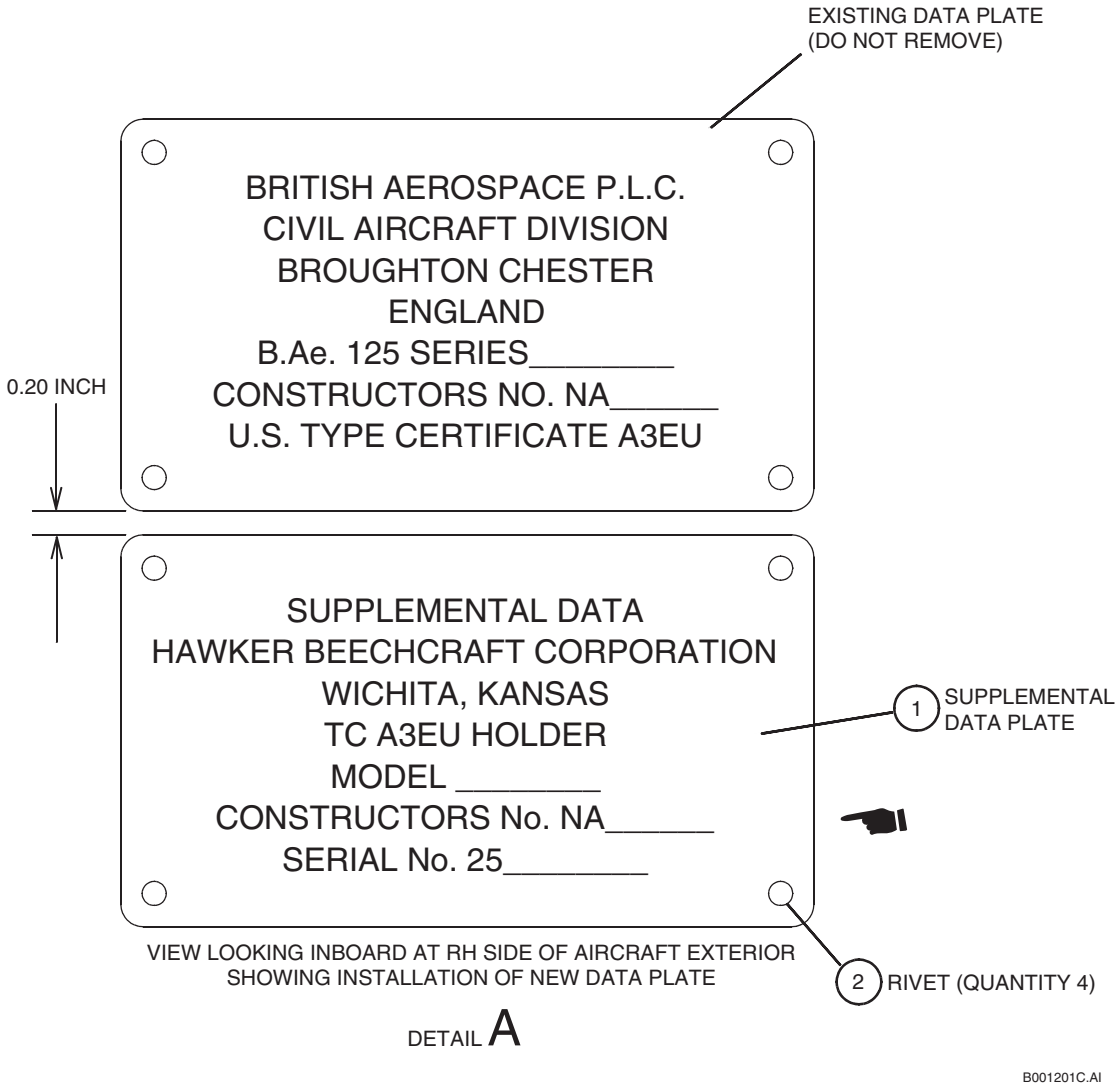
Record the accomplishment of this Service Bulletin in the aircraft technical records.

Report accomplishment on the attached Service Bulletin/Kit Drawing Report Fax with the relevant airplane and Mod details to the following address:

Manager, Hawker Model Group,
Hawker Beechcraft Corporation,
Product Support Department (211),
10511 E. Central,
Wichita, Kansas 67206
U.S.A.
Fax: 316-676-3400
Tele: 316-676-3140 or 1-800-429-5372.

SERVICE BULLETIN





Supplemental Data Plate Installation
Figure 1