Biographical Sketch

Richardson was employed to take aviation photos and took the photos of Wright Field’s Armed Forces Day celebration in October of 1945. Also, it appears that Richardson was employed by Fairchild Aviation to document their aircraft and engines.

Scope and Content

The P.H. Richardson Wright Field Photograph Collection features numerous black and white photos of aircraft and aircraft engines that were featured on display for the Armed Forces Day Celebration at Wright Field in October, 1945. All of the photos of the display contain hand written notes about the subject on the back of the print. Though not part of the Armed Forces Day display, this collection contains several detailed photos of the only Fairchild Ranger powered XAT-6 E built. These photos were most likely taken at Fairchild’s Maryland plant. As well, many of the photos in the collection pertain to Luftwaffe aircraft that were captured in Operation Lusty and brought to Wright Field for testing. The collection is divided into five series. A finding aid is included.

Series I, Photographic Record

Series I contains the official report P. H. Richardson typed regarding the photos. The report does feature hand written corrections.

Series II, American Aircraft

Series II documents the American aircraft featured in the collection. Not only are there conventional aircraft but also there are examples of early guided missiles. The photos are arranged alphabetically by manufacturer. It is worthwhile to mention that multiple aircraft are often visible in each shot.

Series III, Luftwaffe Aircraft

Series III documents the German Luftwaffe aircraft and missiles captured in Operation Lusty that were brought to Wright Field for flight testing. As well, there are photos of the Imperial Japanese Ohka (also referred to as a Baka) manned rocket bomb. The photos are arranged alphabetically by manufacturer. It is worthwhile to mention that multiple aircraft are often visible in each shot.

Series IV, Piston Engines

Series IV documents the piston powered engines that were on display at the Armed Forces Day celebration. The majority of the engines featured are of American manufacture, from such companies as Allison, Chrysler, Continental, Fairchild, General Electric, General Motors, Lycoming, Pratt & Whitney, and Wright. However, there are also photos of a German BMW 803, Daimler Benz, and a Japanese Nakajima 21 Homare. The photos are arranged alphabetically by manufacturer. Those engines without a known manufacturer follow and are listed alphabetically by Richardson’s notes.

Series V, Jet Engines
Series V documents early jet engine technology. There are photos of General Electric’s Type 1A and J 31 engines. As well, there is a photograph of a display detailing the pulse jet engine used by the German V-1/American JB-2 Loon.

### Container Listing

#### SERIES I: PHOTOGRAPHIC RECORD

<table>
<thead>
<tr>
<th>Box</th>
<th>File</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Official index of photos taken by P. H. Richardson at Wright Field’s Armed Forces Day display on October 19, 1945. This four page index is type-written with hand-written corrections.</td>
<td>1945</td>
</tr>
</tbody>
</table>

#### SERIES II: AMERICAN AIRCRAFT

<table>
<thead>
<tr>
<th>Box</th>
<th>File</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td>Bell YP-59</td>
<td>1945</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Bell XP-77</td>
<td>1945</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Profile, Left Hand Side, A/C 43-34915</td>
<td>1945</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Profile, Left Hand Side</td>
<td>1945</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Profile, Left Hand Side (Pilot Identified)</td>
<td>n.d.</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Profile, Left Hand Side (Pilot Identified)</td>
<td>n.d.</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Douglas A-26 C Invader with Fairchild XBQ-3 Guided Bombs</td>
<td>1945</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Profile, Left Hand Side (Pilot Identified)</td>
<td>n.d.</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>Profile, Left Hand Side (Pilot Identified)</td>
<td>n.d.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Profile, Left Hand Side (wider angle)</td>
<td>1945</td>
<td></td>
</tr>
<tr>
<td><strong>Douglas VB-9 Radar Guided Bomb (ROC)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>¾ View, Front, Right</td>
<td>1945</td>
<td></td>
</tr>
<tr>
<td><strong>Douglas VB-10 Radar Guided Bomb (ROC)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>¾ View, Front, Left</td>
<td>1945</td>
<td></td>
</tr>
<tr>
<td><strong>Fairchild PT-26 FA Cornell</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>¾ View, In-Flight, Above and Left, A/C 42-83335</td>
<td>n.d.</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>¾ View, In-Flight, Below and Left</td>
<td>n.d.</td>
<td></td>
</tr>
<tr>
<td><strong>Fairchild AT-21 FA Gunner</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>¾ View, In-Flight, Below and Left, A/C 42-11679</td>
<td>n.d.</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>¾ View, Right Hand Side, Front</td>
<td>n.d.</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>¾ View, Right Hand Side, Front</td>
<td>n.d.</td>
<td></td>
</tr>
<tr>
<td><strong>Fairchild UC-61 K Argus</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Promotional Leaflet, Profile, Left Hand Side, Take Off</td>
<td>n.d.</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Profile, Left Hand Side, Take Off</td>
<td>n.d.</td>
<td></td>
</tr>
<tr>
<td><strong>Grumman J4F-1 Widgeon</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Profile, Right Hand Side, A/C V-197</td>
<td>n.d.</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Profile, Left Hand Side, In-Flight, 3 Widgeons over unidentified warship</td>
<td>n.d.</td>
<td></td>
</tr>
<tr>
<td><strong>Lockheed P-80 Shooting Star “Squirt”</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>¾ View, Left Hand Side, Front</td>
<td>1945</td>
<td></td>
</tr>
<tr>
<td><strong>North American Aviation XAT-6 E (Fairchild Ranger Powered Model)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Artist’s Rendering, Profile, Right Hand Side, In-Flight</td>
<td>n.d.</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Profile, Left Hand Side, Forward Section, Under Construction</td>
<td>n.d.</td>
<td></td>
</tr>
</tbody>
</table>
29 Profile, Right Hand Side, Forward Section, Under Construction  
n.d.
30 Full Rear View  
n.d.
31 ¾ Rear View, Right Hand Side  
n.d.
32 Front View, Showing Cowl Flaps Open  
n.d.
33 Front View, Showing Cowl Flaps Open  
n.d.
34 Profile, Right Hand Side  
n.d.
35 Profile, Right Hand Side  
n.d.
36 Profile, Left Hand Side  
n.d.
37 ¾ View, Cowling Removed, Detail of Ranger Engine, Left Hand Side  
n.d.
38 Profile, Cowling Removed, Detail of Ranger Engine, Left Hand Side  
n.d.
39 Profile, Cowling Removed, Detail of Ranger Engine, Right Hand Side  
n.d.
40 Profile, Cowling Removed, Detail of Ranger Engine, Right Hand Side  
n.d.
41 Top View, Cowling Removed, Detail of Ranger Engine  
n.d.
42 Bottom View, Cowling Removed, Detail of Ranger Engine  
n.d.
43 Promotional Leaflet, ¾ View, Front, Right Hand Side  
n.d.

**Republic Aviation JB-2 Loon (American Made V-1)**

44 Profile, Left Hand Side, Rear, #1691  
1945
45 Profile, Left Hand Side, Rear, Farther Aft, #1691  
1945
46 Profile, Left Hand Side, Rear, Farther Aft, #1691 (Wide Angle)  
1945
47 Profile, Left Hand Side, Forward of the Wing Root, #1691  
1945
48 Profile, Left Hand Side, On Launch Ramp, “Japanese Sandman”  
1945
49 Profile, Left Hand Side, On Launch Ramp, “Japanese Sandman”  
1945

**Wright Field Equipment Laboratory GB-4**

50 ¾ View, Right Hand Side, Front  
1945
<table>
<thead>
<tr>
<th>Box</th>
<th>File</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
</table>
| 51  |      | **Arado Ar 234 Blitz**
|     | ¾ View, Front, Left Hand Side | 1945 |
| 52  |      | **Bachem Ba 349 Natter**
|     | ¾ View, Front, Left Hand Side | 1945 |
| 53  |      | ¾ View, Front, Right Hand Side | 1945 |
| 54  |      | ¾ View, Front, Right Hand Side (Close Up) | 1945 |
| 55  |      | **Feiseler Fi 103 (V-1 Buzz Bomb)**
|     | ¾ View, Front, Left Hand Side | 1945 |
| 56  |      | **Focke-Wulf Fw 190 G-3**
|     | Profile, Left Hand Side, A/C EB-104 (In American Markings) | 1945 |
| 57  |      | **Heinkel He 162 Salamander**
|     | Profile, Right Hand Side (Wide Angle) | 1945 |
| 58  |      | Profile, Right Hand Side | 1945 |
| 59  |      | **Henschel Hs 293 Radio-Guided Anti-Shipping Missile**
|     | Profile, Right Hand Side | 1945 |
| 60  |      | Profile, Right Hand Side (Wide Angle) | 1945 |
| 61  |      | **Junkers Ju 290 “Alles Kaputt” A/C FE-3400**
|     | Profile, Left Hand Side, Forward of the Wing | 1945 |
| 62  |      | Profile, Left Hand Side, Forward of the Wing (Note the Japanese Ohka) | 1945 |
| 63  |      | Profile, Left Hand Side, Forward of the Wing (Note the Japanese Ohka) | 1945 |
| 64  |      | ¾ View, Left Hand Side, Forward Section | 1945 |
| 65  |      | Left Wing Engine Nacelles | 1945 |
66 Profile, Exhaust Nozzles 1945
67 Rear View, Exhaust Nozzles 1945
68 Rear View, Exhaust Nozzles 1945
69 Profile, Exhaust Nozzles 1945
70 Cowl Detail 1945

**Junkers Ju 388**
71 Profile, Right Hand Side, A/C FE-4010 1945

**Messerschmidt Me 163 Komet**
72 ¾ View, Left Hand Side, A/C 191-301 1945
73 ¾ View, Left Hand Side (Wide Angle) 1945

**Messerschmidt Me 262 Schwalbe**
74 ¾ View, Left Hand Side, A/c FE-111 1945

**Mittelwerk GmbH Aggregat-4 (V-2 Rocket)**
75 Erect, (Note Engine to the Side) 1945
76 Erect, (Note Engine to the Side) 1945

**SERIES IV: PISTON ENGINES**

<table>
<thead>
<tr>
<th>Box</th>
<th>File</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>77</td>
<td></td>
<td>Allison V-3420 B-5 Bevel Drive and Extension Shafting (ATC Program)</td>
<td>1945</td>
</tr>
<tr>
<td>78</td>
<td></td>
<td>Pair of Engines Hooked to One Gearbox and Counter-rotating Props</td>
<td>1945</td>
</tr>
</tbody>
</table>

**Bavarian Motor Works BMW 803**
79 ¾ View, Front, Right Hand Side 1945
80 Profile, Left Hand Side 1945
81  Detail, Carburetor Intakes, Left Hand Side 1945
82  Detail, Carburetor Intakes, Right Hand Side 1945

**Chrysler XI-2220-II**
83  Profile, Left Hand Side 1945
84  ¾ View, Front, Left Hand Side 1945
85  Full Front View 1945
86  Detail, Shaft, Left Hand Side 1945

**Continental X-1430-25**
87  ¾ View, Front, Right Hand Side 1945
88  Top View, Cambox 1945
89  Top View, Cambox 1945

**Daimler Benz DB-610**
90  Profile, Right Hand Side 1945
91  ¾ View, Rear, Right Hand Side 1945

**Fairchild Caminez**
92  ¾ View, Front, Left Hand Side 1945
93  Full Front View 1945

**General Electric XT-31 “Prop Jet”**
94  Profile, Left Hand Side 1945
95  Profile, Right Hand Side, Rigged for Testing 1945

**General Motors X-250**
96  ¾ View, Front, Left Hand Side 1945
97  Profile, Left Hand Side 1945
98  Full Front View 1945
99  Full Front View (Detail) 1945
100  Full Front View (Wide Angle)  
101  Profile, Right Hand Side  
102  Top View, Cylinder Detail  
103  Top View, Cylinder Detail  
104  Detail, Carburetor Cut-Away  

**Lawrence 2 Cylinder Engine**  
105  Full Front View  

**Liberty 4 Cylinder**  
106  Profile, Right Hand Side  

**Lycoming R-680**  
107  Cut-Away Cylinder Detail  

**Lycoming XR-7755**  
108  ¾ View, Front, Left Hand Side  
109  ¾ View, Rear, Right Hand Side  
110  ¾ View, Rear, Left Hand Side  

**Nakajima 21 “Homare” (Honor)**  
111  Profile, Left Hand Side  
112  Cylinder Detail  
113  Cylinder Detail  
114  Cylinder Detail  
115  Cylinder Detail  

**Pratt & Whitney R-2800 “Double Wasp”**  
116  Full Front View, On Test Bed  

**Pratt & Whitney R-4360 “Major”**  
117  ¾ View, Front, Right Hand Side
Pratt & Whitney Cylinders

Overview of Entire Cylinder Display
Overview Facing the Left Hand Side of the Display
R-985 Cylinder
R-985 Two Cycle Fuel Injection Cylinder with Piston
R-1340 Early Production Cylinder
R-1340 Present Production Cylinder (1945)
R-1340 “L” Cylinder for Small Engine Diameter
R-1690 Fine Fin Bolted Head
R-1690 Early Coarse Fin Cylinder
R-1690 Bolted on Head Early Coarse Fin
R-1690 Present Production Cylinder (1945)
R-1830 Interchangeable Front or Rear Rows Interconnected Intake Ports
R-1830 Production Type C-4 Cylinder
R-1830 Present Production Type C-9 Cylinder (1945)
R-1860 Early Fine Fin Cylinder
R-2000 Cylinder with Cast on Aluminum Barrel Muff
R-2000 Present Type Cylinder (1945)
R-2150 Cylinder with Maximum Obtainable Cast Finning
R-2800 Latest Production “B” Type Cylinder (1945)
R-2800 Early “C” Type Cylinder
161 ¾ View, Rear, Right Hand Side, on Test Bed 1945
162 Cut-Away Detail 1945
163 Cut-Away Detail 1945
164 ¾ View, Rear, Right Hand Side 1945

Helicopter Blade Mechanism

165 Shot from Below 1945

SERIES V: JET ENGINES

<table>
<thead>
<tr>
<th>Box</th>
<th>File</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>General Electric Type 1A (Whittle Clone)</td>
<td></td>
</tr>
<tr>
<td>166</td>
<td></td>
<td>Profile, Right Hand Side</td>
<td>1945</td>
</tr>
<tr>
<td>167</td>
<td></td>
<td>Profile, Left Hand Side, Rigged for Testing (Wide Angle)</td>
<td>1945</td>
</tr>
<tr>
<td>168</td>
<td></td>
<td>Profile, Left Hand Side, Rigged for Testing</td>
<td>1945</td>
</tr>
</tbody>
</table>

General Electric J-31

169 Profile, Left Hand Side, Rigged for Testing 1945

General Electric J-35

170 Profile, Left Hand Side, Rigged for Testing 1945

German Pulse Jet (V-1 Engine)

171 Profile, Left Hand Side (Detail of Display) 1945

Turbine Rotor Assemble

172 ¾ View, Rear, Right Hand Side 1945