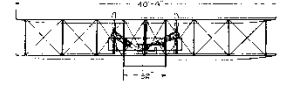




Smithsonian  
National Air and Space Museum



## WRIGHT BROTHERS 1903 FLYER DRAWINGS

### National Air and Space Museum Drawings

The Wright Brother's 1903 Flyer holds a special place in aviation history as the vehicle in which mankind first achieved controlled, powered, and sustained flight. Aviation historians, enthusiasts, and modelers continue to have a fascination with this particular aircraft over others developed and flown since 1903. The Wrights made no drawings of the aircraft when they originally built it and they continuously modified the craft during flight tests in Dayton, Ohio, and Kitty Hawk, North Carolina. Since the 1903 Flyer was heavily damaged following its last flight in 1903 and by a flood in Dayton in 1913 and was reconstructed in 1916 and 1925-27, there will always be some doubt about the exact configuration of the aircraft during the 1903 flights. Drawings of the airplane were made by the Science Museum of London and by Louis Christman; these drawings were made based on the airplane as it was then displayed. During the National Air and Space Museum's 1985 restoration of the Wright 1903 Flyer the restoration team completely disassembled the aircraft and measured each component. The Museum created a new set of drawings based on this work for both the aircraft (drawings complete in 1986) and engine (drawings complete in 1990) as they existed in 1985.

#### NATIONAL AIR AND SPACE MUSEUM DRAWINGS (1986, 1990)

The *NASM Drawings* consist of a set of 50 drawings detailing the airframe and engine of the Wright 1903 Flyer as it existed in 1985. Titles and drawing numbers for the set are listed on the reverse of this form. The *NASM Drawings* are available as a **complete set of fifty 24" x 36" prints**, or as individual 24" x 36" prints. Individual drawings orders are custom printed; because of the large number of requests we receive and the limited number of staff available to fill these orders, you may request *no more than 25 drawings per individual drawing order*. To order individual drawings, mark the selected drawings on the reverse.

ORDERED BY:		
Name _____		
Organization _____		
Address _____		
City _____	State _____	Zip/Postal Code _____
Country _____		
Telephone _____	Email _____	

SHIP TO (if different from "Ordered By"):		
Name _____		
Organization _____		
Address _____		
City _____	State _____	Zip/Postal Code _____
Country _____		
Telephone _____	Email _____	

	No. Ordered	Amount
Number of Complete Sets Ordered (\$75.00 PER SET)		
Number of Individual Drawings Ordered (\$6.00 PER DRAWING – <i>DO NOT EXCEED 25 DRAWINGS PER ORDER</i> )		
Shipping (see NASM Archives Shipping Rates for):		
<b>TOTAL</b>		



**A signed Document Use and Indemnification Agreement is required before reproductions of materials from this collection may be released. Any order not accompanied by a signed agreement cannot be filled. Please complete and sign TWO copies; return one to the NASM Archives and keep the second signed copy for your records. If you need to obtain blank agreement forms, please contact the NASM Archives before submitting this order.**

#### Payment Method

**NOTICE:** These items are provided for historical and reference use only. The National Air and Space Museum and its donors assume no liability for any loss or damage resulting from or in any way connected to other use of this information. Not for commercial use or further dissemination.

<input type="checkbox"/> <b>CHECK OR MONEY ORDER ENCLOSED</b> (in US Funds drawn on a US bank, payable to <b>National Air and Space Museum</b> )	
<input type="checkbox"/> <b>CREDIT CARD</b>	
Type:	<input type="checkbox"/> MasterCard <input type="checkbox"/> VISA
Account Number _____	Exp. Date _____
Card Holder (print): _____	
Card Billing Address (print): _____	
I authorize the Smithsonian Institution to bill my credit card for the amount shown above under "TOTAL"	
Authorized Signature _____	Date _____

Send Order and Payment to:

**Archives Division  
National Air and Space Museum  
Steven F. Udvar-Hazy Center  
14390 Air & Space Museum Pkwy.  
Chantilly, VA 20151**

# WRIGHT BROTHERS 1903 FLYER DRAWINGS

National Air and Space Museum Drawings

#	Code	Description
	<b>A1</b>	Three View Drawing
	<b>B1</b>	Lower Center Wing Structure
	<b>B2</b>	Upper Center Wing Structure
	<b>B3</b>	Right Wing Structure, Upper and Lower, Outer
	<b>B4</b>	Left Wing Structure, Upper and Lower, Outer
	<b>B5</b>	Wing Ribs, Center and Outer Wings
	<b>B6</b>	Engine Support Bearers, Lower Center Wing
	<b>B7</b>	Pilot Support Bearers, Lower Center Wing
	<b>B8</b>	Wing Struts, Strut Fittings, Wing Hinge Plates
	<b>B9</b>	Wing Coverings, All Wing Structures
	<b>B10</b>	Wing Trussing, Truss Wire Diagram
	<b>C1</b>	Drawing Index – Engine
	<b>C2</b>	Engine Assembly and Installation, Left Side Elevation
	<b>C3</b>	Engine Assembly and Installation, Front and Rear Elevations
	<b>C4</b>	Engine Assembly and Installation, Plan View
	<b>C5</b>	Engine Details; Crankcase
	<b>C6</b>	Engine Details; Crankshaft, Flywheel, Pistons, Drive Sprockets, Connecting Rods
	<b>C7</b>	Engine Details; Valve Housing; Valves and Ignition
	<b>C8</b>	Engine Details; Exhaust and Ignition Camshafts
	<b>C9</b>	Engine Details; Crankcase Cover, Fuel Line, Intake Manifold
	<b>C10</b>	Low Tension Magneto
	<b>C11</b>	Water Cooling Radiator and Hose Connections
	<b>C12</b>	Fuel Tank, Fuel Control Valves, Engine Control Lever
	<b>C13</b>	Miscellaneous Details
	<b>C14</b>	Miscellaneous Details

#	Code	Description
	<b>D1</b>	Skid Structure Assembly and Details
	<b>D2</b>	Detail Structural Views & Fittings - Right Side
	<b>D3</b>	Detail Structural Views & Fittings - Left Side
	<b>D4</b>	Landing Skid, Cross Ties & Fittings
	<b>E1</b>	Front Rudder Outrigger Assembly
	<b>E2</b>	Outrigger Sub-Assembly and Details
	<b>E3</b>	Outrigger Struts, Cross Tie, and Fittings
	<b>E4</b>	Front Rudder Covering and Installation
	<b>E5</b>	Front Rudder Structure and Mounting
	<b>E6</b>	Control Shaft Assembly and Details
	<b>E7</b>	Operating Control Shaft Assembly and Details
	<b>F1</b>	Rear Rudder Assembly and Installation
	<b>F2</b>	Rear Rudder Structure and Fitting
	<b>F3</b>	Rear Rudder Upper and Lower Outrigger Struts
	<b>G</b>	First Flights Propeller (NASM revision 01/06/87)
	<b>G1</b>	Propellers and Drive Chains Installation
	<b>G2</b>	Propellers and Propeller Drive Shafts
	<b>G3</b>	Shaft Sprockets, Chains, and Right Side Chain Guide
	<b>G4</b>	Left Side Chain Guide Casing
	<b>G5</b>	Propeller Shaft Bearing Housing and Strut Assemblies
	<b>H1</b>	Wing Warping and Rear Rudder Control Assembly
	<b>H2</b>	Control Wire and Fitting Details
	<b>H3</b>	Pilot's Control and Operating Cradle and Footrest
	<b>J1</b>	Instruments and Mounting Details
	<b>K1</b>	Monorail Track and Carrier Dolly

Individual prints are \$6.00 each plus shipping.

**ADDITIONAL WRIGHT 1903 FLYER DRAWINGS SETS AVAILABLE:** In addition to the *National Air and Space Museum Drawings* (1986, 1990), the collections of the National Air and Space Museum Archives contain three other sets of drawings of the 1903 Flyer and its components, executed at various times during the life of the aircraft: *Science Museum of London Drawings* (1928, 1938), *Ford Drawings* (1939), and *Christman Drawings* (1950). Additional information on these sets is available upon request.