

# B-52G in Flight



Chopped tail fin, new wet wings, tail gunner up front, no ailerons

# B-52G on Ramp (early version)



Has big radome in nose, bulging nacelles retained

# B-52G (later version)



**EVS retrofitted to nose underside: low-light TV plus FLIR**

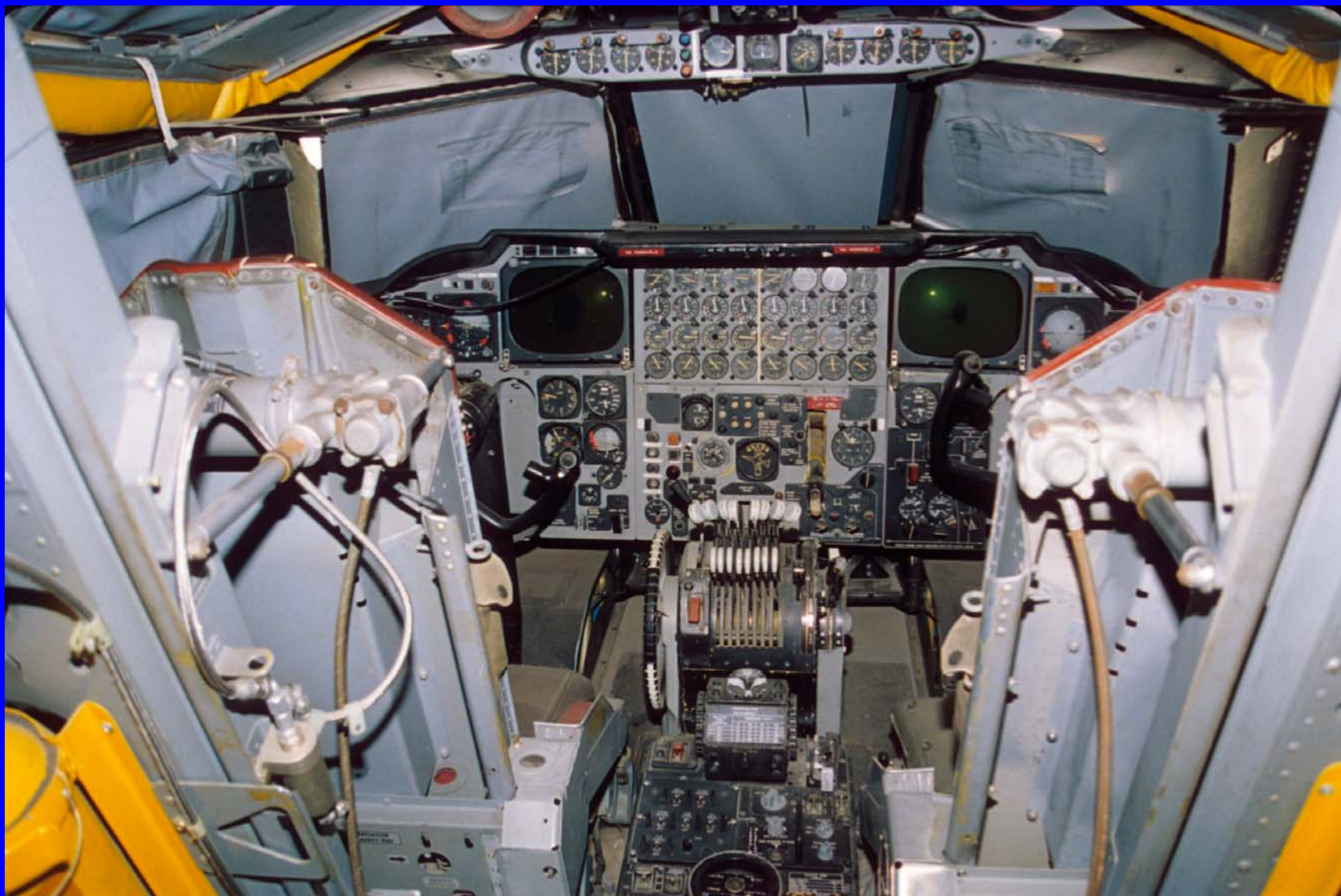
# B-52G Climb Out



**Big Fowler flaps down, G carried AGM-69A SRAM nuclear missiles <sup>33</sup>**



# B-52G Cockpit at Castle Air Museum



**Twin EVS CRTs visible**

# Early B-52H on Ramp



**Main upgrade over G was P&W TF33 turbofans**



# Pratt & Whitney TF-33 Turbofan Engine



Developed 17,000 lb thrust (dry), military version of civil JT3D

# Early B-52H Tail Gun (later removed)



**GE M61 6-barrel 20 mm cannon replaced 4 machine guns**



# B-52H in Flight



Camouflage paint job of 1980s, nose retrofitted with EVS

# B-52H on Ramp



**This bomber can carry an impressive array of ordnance**



# B-52H Front End Detail



Wrinkles and “stretch marks” demonstrate middle age of the BUFF<sup>40</sup>



# B-52H After Takeoff



**Large Fowler flaps and folding landing gear are visible**

# B-52H Refueled by KC-10A Tanker



McDonnell-Douglas (Long Beach) built 60 KC-10A Extenders

# B-52H Top View



The B-52 planform & large 4,000 sq. ft. swept wing are impressive <sup>43</sup>



# B-52H on Alert at Minot AFB, ND (5th BW)



B-52s on ground alert with nukes had armed guards (until 1991) <sup>44</sup>

# Derivatives & Test Beds

- NB-52A/B/H (NASA test beds)
- RB-52B/C (convertible reconnaissance/bombers)
- JB-52B (nuclear weapons effects)
- JB-52C (ECM work)
- NB/JB-52D (dropped dummy nuclear weapons)
- NB/JB-52E (test bed/turbofan engines: XTF-39, JT-9D)
- NB-52E (stability & control test platform)
- GB-52B/D/E/F/G (various ground trainers)
- XB-52G (“A” test bed with reduced tail fin)
- JB-52G (special R&D duties)
- JB-52H (various cruise missile testers)
- YB-52H (“G” test bed with new TF-33 engines)

# NASA's NB-52A (tail number 003)



Famous X-15 rocket plane is tucked under right wing



# NB-52A at Pima Air Museum (Tucson, AZ)



The empty pylon for X-15A is evident

# NASA NB-52B (tail # 008) Taking Off



Pegasus under wing is 3-stage launch vehicle for NEO satellites

# NASA NB-52B Testing Shuttle Drag Chute



**NB-52B was oldest and lowest-time B-52 flying, retired Dec. 2004** <sup>49</sup>



# RB-52B on Ramp



Many B and C models were convertible to photo recon platforms <sup>50</sup>

# Colorful NB-52E with Nose Boom



Used for stability and control tests

# NASA NB-52H in Flight



NASA Dryden Flight Research Center Photo Collection

<http://www.dfrc.nasa.gov/gallery/photo/index.html>

NASA Photo: EC02-0083-3 Date: April 16, 2002 Photo by: Jim Ross

**Missions dropped, so NASA returned it to USAF**



# **B-52 Combat Campaigns**

- **Southeast Asia (1965-1973: Arc Light, Bullet Shot, Linebacker I and II, etc.)**
- **Gulf War I (Operation Desert Storm, 1991)**
- **Iraq (Operation Desert Strike, 1996)**
- **Iraq (Operation Desert Fox, 1998)**
- **Yugoslavia (Operation Allied Force, 1999)**
- **Afghanistan (Operation Enduring Freedom, 2001-?)**
- **Gulf War II (Operation Iraqi Freedom, 2003)**

# B-52F Dropping Bombs Over SEA



F models pulled from Arc Light in favor of Big-Belly D models

# B-52D Dropping McDonnell Quail Decoy



4 ADM-20s were carried in bomb bay to deceive enemy (1960-1978)<sup>55</sup>



# B-52G Dropping Boeing AGM-86 ALCM



Nuclear B models converted to conventional warhead Cs and Ds

# B-52H at Diego Garcia, Indian Ocean (1996)



Originally thought to be landing, this H is taking off—nose down! <sup>57</sup>

# B-52H Testing JDAMs



GPS satellite guided in all weather, JDAMs operational Sept. 1998 <sup>58</sup>



# B-52H with Big JDAM Loading on Ramp



Probably a 2,000 lb GBU-31, CEP accuracy better than 13 meters 59

# Summary of Conclusions

- **Major contributor to U.S. national defense**
- **Meritorious combat history**
- **Exceptional ordnance flexibility**
- **Well respected by its many aircrews**
- **1st & only U.S. aircraft to drop live H bomb**
- **Pioneered use of twin-spool P&W J57**
- **Has future as useful stand-off weapons platform (as for nuclear-tip cruise missiles), potential airborne electronic jammer**
- **Active fleet of 74 H models still in service**
- **Unequaled longevity: projected to 2040-2045 (up to 90 yr. of frontline combat jet service!)**

**Video: dramatic takeoff of B-52B  
from “Bombers B-52” (1957)**

**Filmed at Castle AFB in California, 1956**

**Starring:  
Karl Malden  
Natalie Wood  
Efrem Zimbalist Jr.**



# **Automated Slide Show with Music**

**A soaring tribute to the B-52H**

**Produced by Lt. Col. Keith Snyder  
(B-52 Aircraft Commander)**