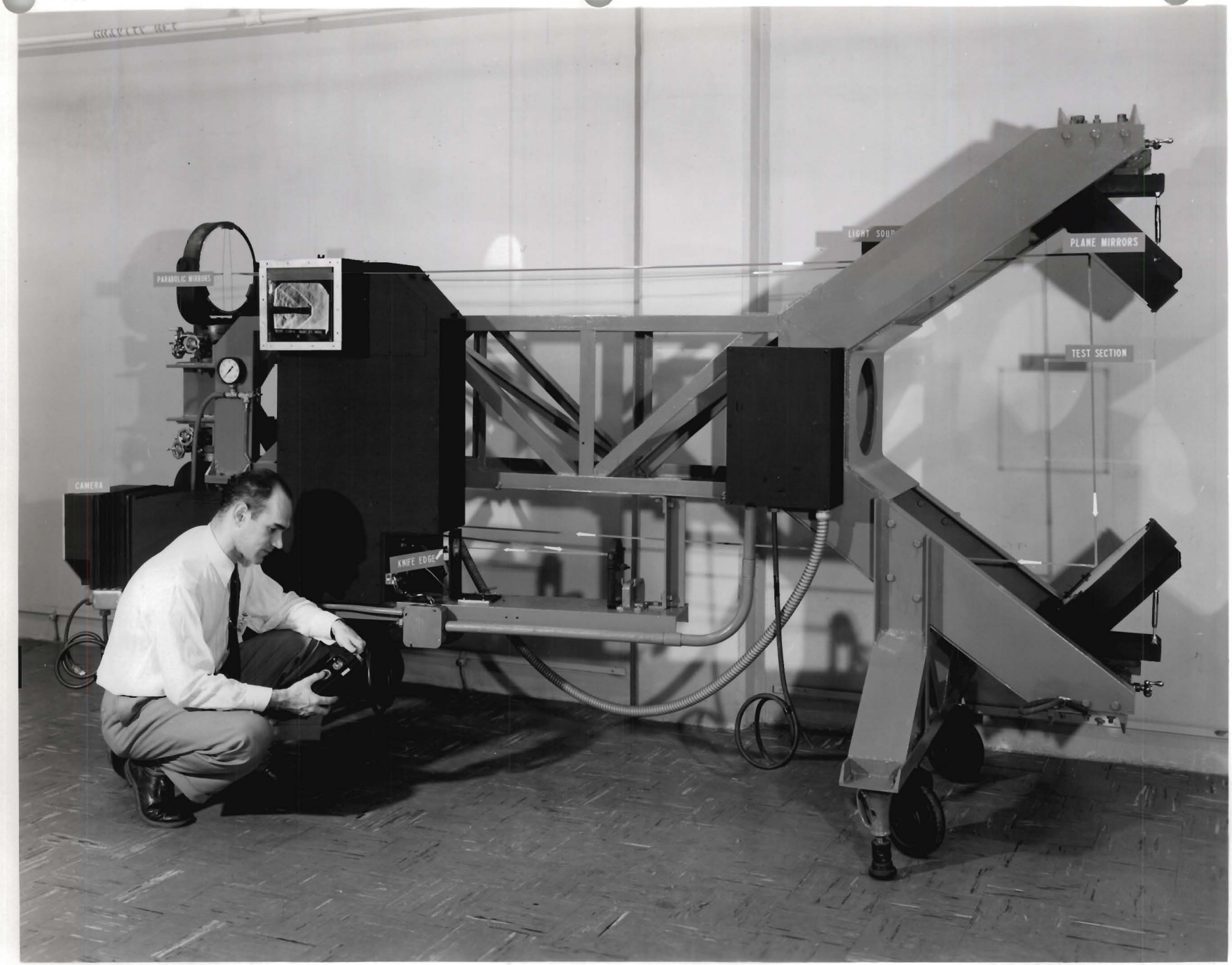
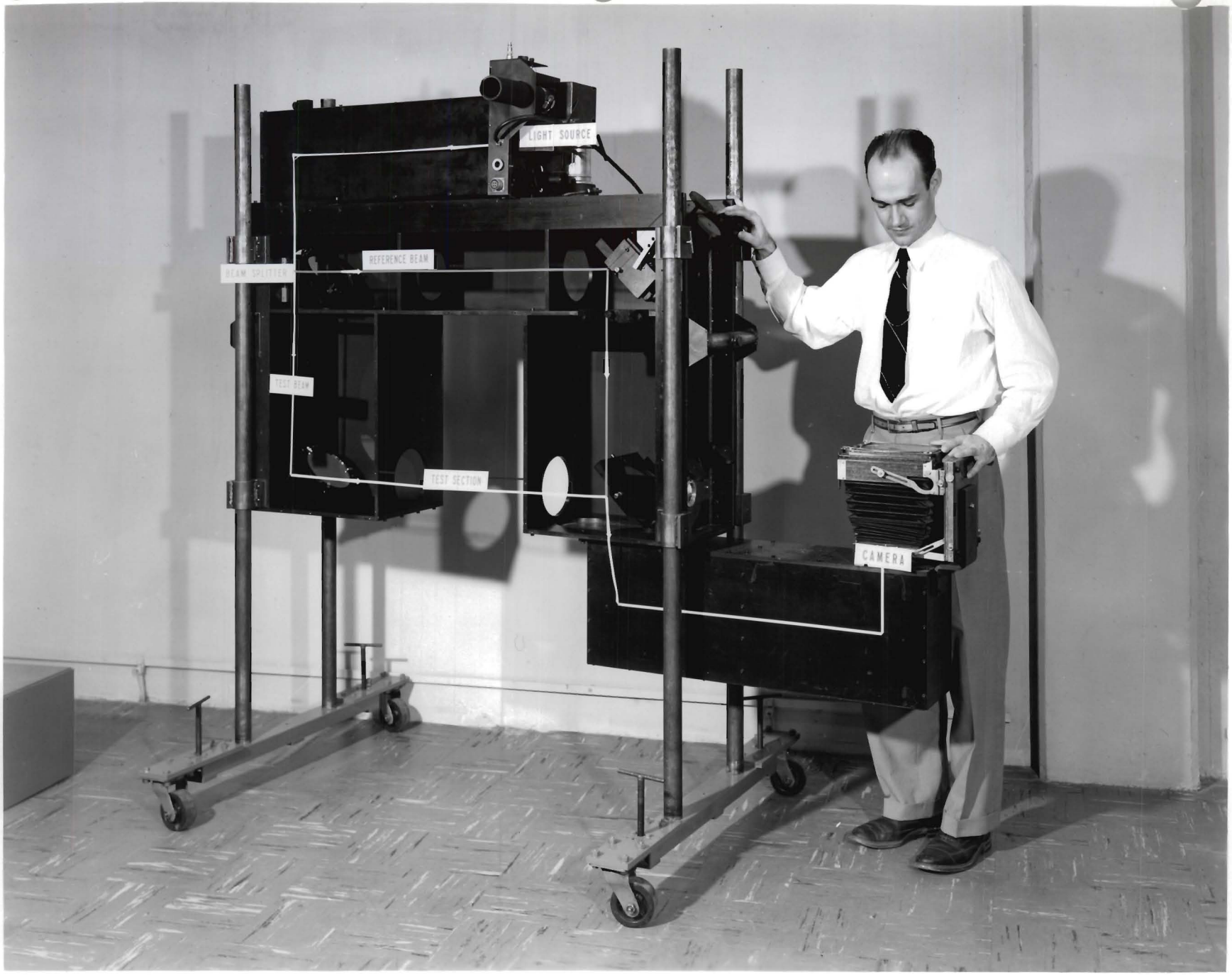
NACA
C-35968


PARABOLIC MIRRORS
LIGHT SOUR
PLANE MIRRORS
TEST SECTION
CAMERA
KNIFE EDGE

NACA
C-35967


LIGHT SOURCE
REFERENCE BEAM
BEAM SPLITTER
TEST BEAM
TEST SECTION
CAMERA

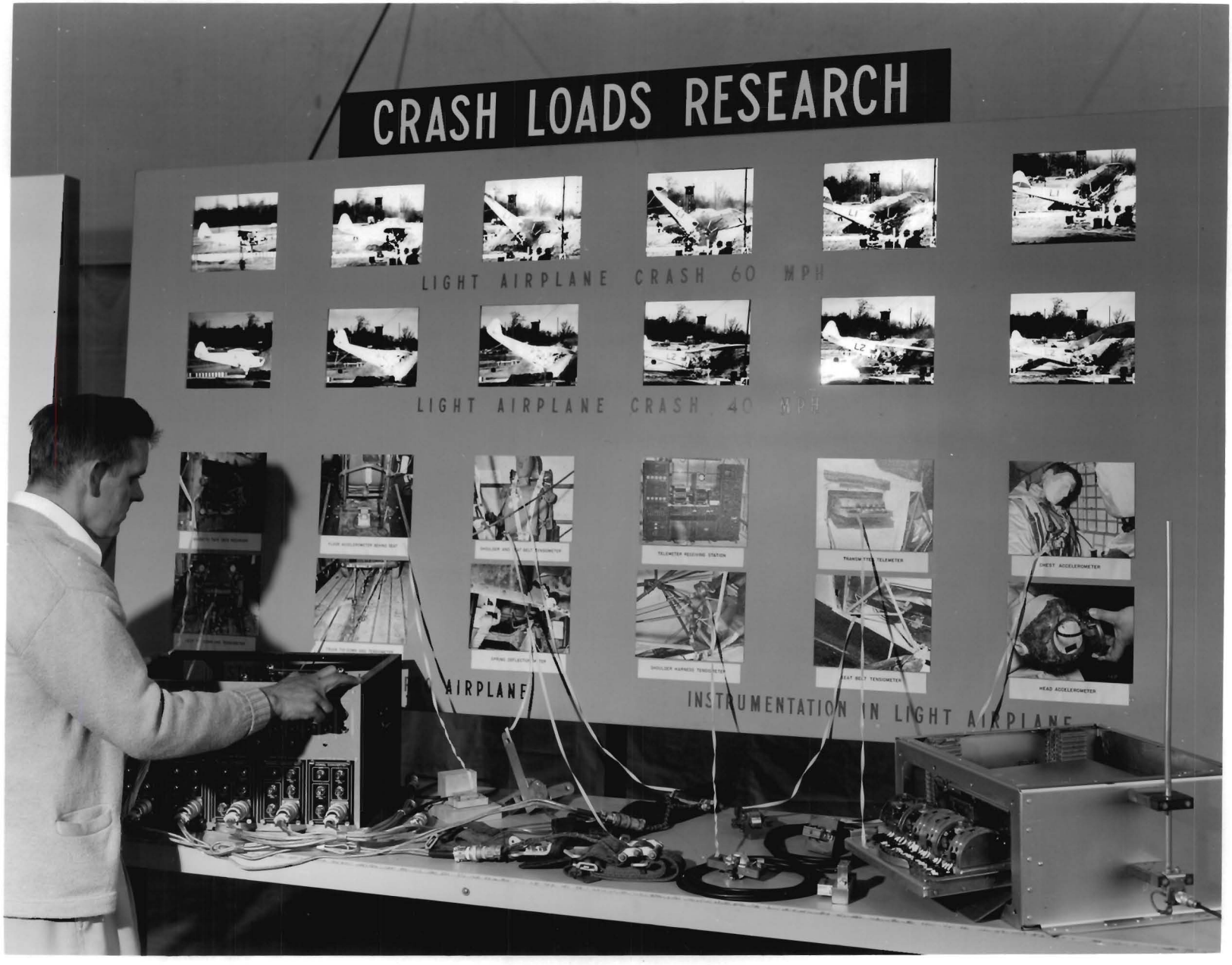
NACA

C-35981

NACA
35980

NACA RAVENNA CRASH SITE
AREA FOR CRASH FIRE INVESTIGATION
NACA RAVENNA CRASH SITE
CRASH AREA FOR LIGHT AIRPLA
CRASH LOADS INVESTIGATION

NACA
L-35979


CRASH LOADS RESEARCH
LIGHT AIRPLANE CRASH 60 MPH
LIGHT AIRPLANE CRASH 40 MPH
INSTRUMENTATION IN LIGHT AIRPLANE

NACA

C-35978

FIREPROOF INSTRUMENT BOX
PROTECTS INSTRUMENT RECORDING EQUIPMENT
DURING CRASH IMPACT AND FIRE
NO SMOKING
FILM SPEED TIMER
CAMERAS
WEIGHT
DRY 7395 LBS
WET 11240 LBS

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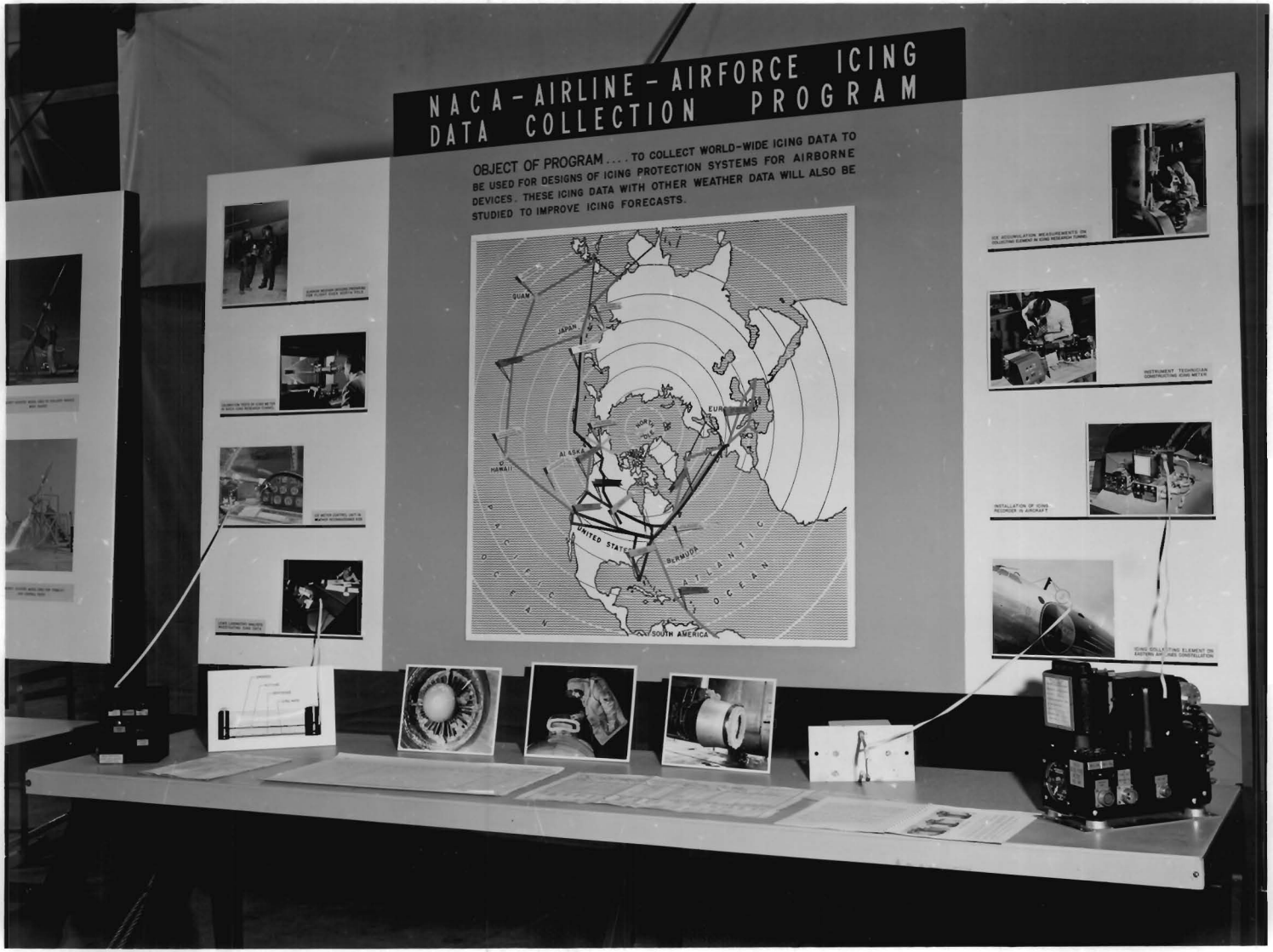
C-35976

CRASH FIRE INVESTIGATION
CRASH CONFIGURATIONS
CRASH ON 3° SLOPE
CRASH ON 15° SLOPE
GROUND LOOP CRASH

NACA
C-35974


NACA - AIRLINE - AIRFORCE ICING
DATA COLLECTION PROGRAM
OBJECT OF PROGRAM.... TO COLLECT WORLD-WIDE ICING DATA TO BE USED FOR DESIGNS OF ICING PROTECTION SYSTEMS FOR AIRBORNE DEVICES. THESE ICING DATA WITH OTHER WEATHER DATA WILL ALSO BE STUDIED TO IMPROVE ICING FORECASTS.
GUAM
JAPAN
ALASKA
HAWAII
UNITED STATES
BERMUDA
ATLANTIC OCEAN
PACIFIC OCEAN
SOUTH AMERICA

NACA
C-35973

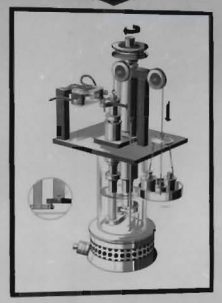
HIGH SPEED FREE DROP MISSILE
16" FREE FLIGHT RAM JET MOUNTED UNDER LAUNCHING AIRCRAFT
ROCKET POWERED MISSILE

NACA
C-35970

BEARINGS & LUBRICANTS

OBJECT OF PROGRAM....TO OBTAIN BEARINGS AND LUBRICANTS FOR USE IN HIGH TEMPERATURE TURBINE ENGINES FOR HIGH SPEED FLIGHT

LUBRICATION



CAGE MATERIAL

FATIGUE TESTS

COMPLETE BEARING

POSSIBLE LUBRICANTS & BEARING MATERIALS

TEMP. RANGE	1	2	3
ENGINE STATUS	PRODUCTION		NEAR FUTURE
	OLDER	NEWER	
MAX. TEMP. °F BEARING	<350	500	750
BULK LUBRICANT	250	300	400
MIN. TEMP. °F	-65		

LUBRICANTS & BEARING TEMPERATURE TRENDS

TEMP. RANGE	1	2	3
POSSIBLE LUBRICANTS	LIQUID PETROLEUM	LIQUID SYNTHETICS	SOLIDS OR GASES
POSSIBLE BEARING MATERIAL A.FOR RACES & ROLLING ELEMENTS	SAE 52100	TOOL STEELS	
B.FOR CAGES	SILVER-PLATED BRONZE	NICKEL ALLOYS & SPECIAL MATERIALS	

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C-35971

BLADE FABRICATION
14" AIRFOIL MACHINE
CUTTING AN ALUMINUM BLADE TO BE USED
AS A MASTER FOR DIE SINKING PURPOSES

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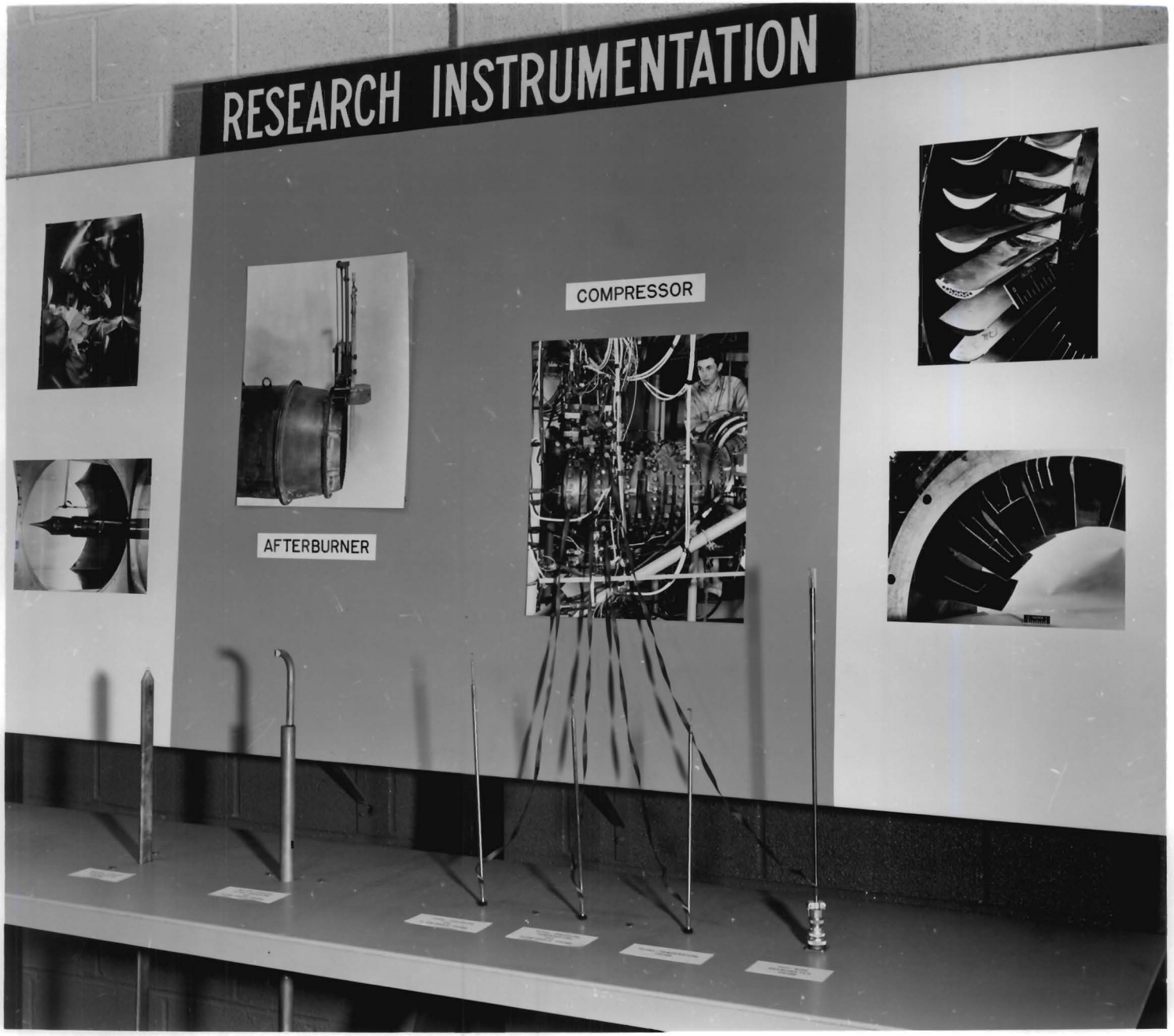
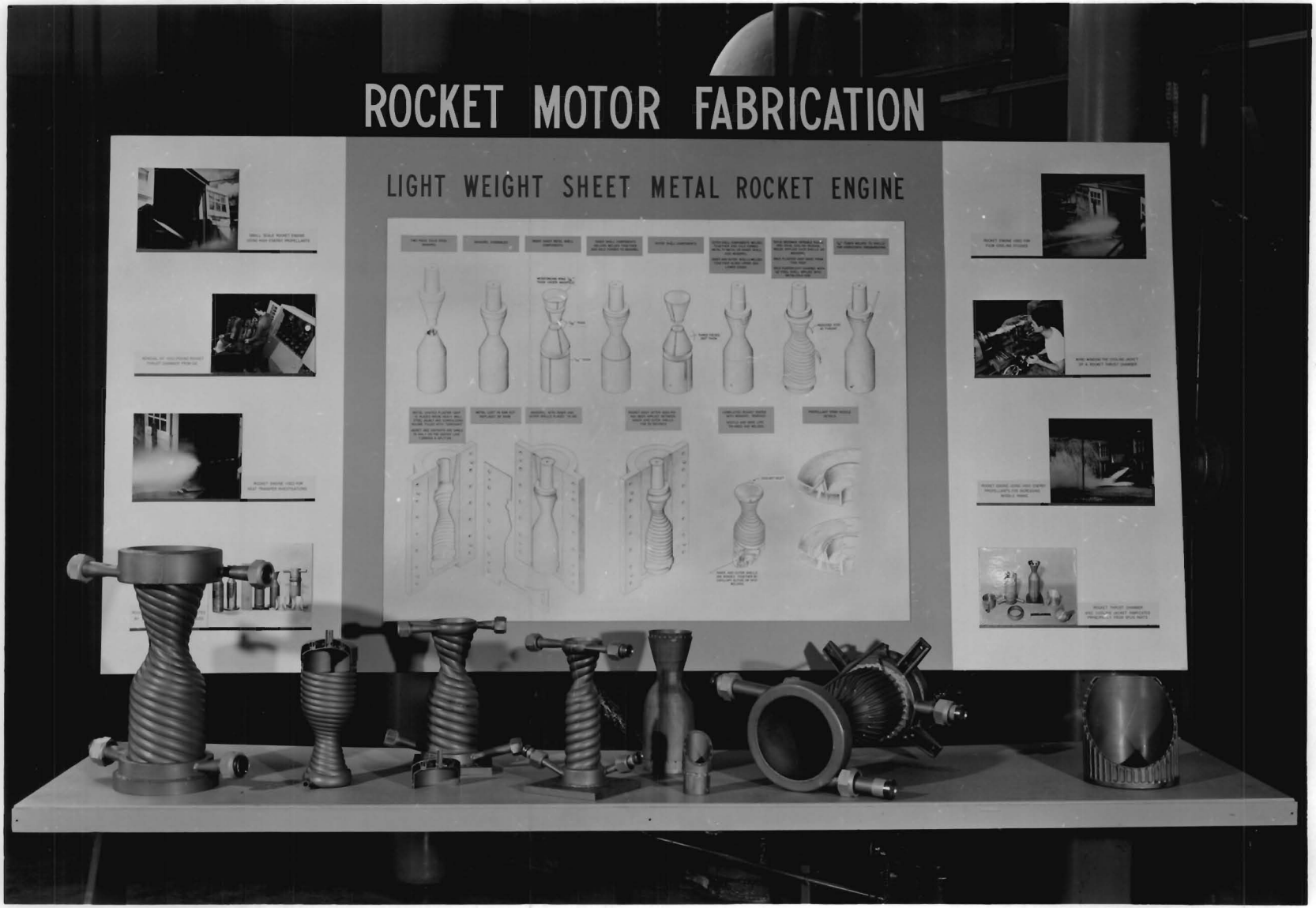
C-35972



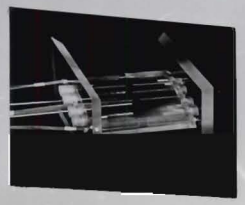
NACA
C-35975


ROCKET MOTOR FABRICATION
LIGHT WEIGHT SHEET METAL ROCKET ENGINE

NACA
C-35977

MODEL FABRICATION

SOME OF THE UNIQUE TOOLS OF RESEARCH ARE BUILT BY CRAFTSMEN OF OUR MODEL SHOP. THE MODELS ARE OF TWO BASIC TYPES: THOSE USED TO OBTAIN DATA AND THOSE USED TO CONSTRUCT OTHER MODELS. THE FIRST GROUP INCLUDES RESEARCH MODELS SUCH AS TRANSPARENT ENGINE PARTS, INLETS AND AIR SCOOPS. THE SECOND GROUP INCLUDES OVERSIZE BLADES USED AS DUPLICATING MACHINE MASTERS TO FABRICATE WIND TUNNEL BLADES AND COMPRESSOR AND TURBINE BLADES.



A SPECIAL ROUTER JIG IS FORMING A WING SECTION

A LARGE AMOUNT OF WORK IS DONE WITH PLASTICS THIS REQUIRES CAREFUL PAINSTAKING WORK. HERE IS AN EXAMPLE OF A PLASTIC DEVELOPMENT PROJECT.

THE SHOP'S LATEST DEVELOPMENT IS THE CASTING OF METAL MASTERS FOR SUPERSONIC IMPELLERS, WITH A LOW MELTING ALLOY. THIS METAL IS A TIN-BIZMUTH ALLOY AND CAN BE WORKED WITH WOODWORKING HAND AND MACHINE TOOLS

NACA
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SAFETY
DAYS
WITHOUT A
LOST TIME ACCIDENT
195
THE PRESENT
LABORATORY
RECORD
Fabrication Division
Outstanding Safety Performance
YOU'RE NOT
ATLAS
Today's Accident can
Spoil Tomorrow's Plans!