FRD

What do we do?

- Curators
- Planners
- Conservators
- Designers
- Writers
- Filmmakers

FRD

We take collections of things and tell stories with them – in doing so we make the past relevant to the future

COTMA

So what do you do?

- Heritage Tramways
- Museums
- Tourist Tramways
- Preservation Societies
- Historians
- Enthusiasts



THE PAST



THE FUTURE



CONNECTING THE PAST AND THE FUTURE

COTMA

So here’s a couple of important questions –

Why do you do it?

Who do you do it for?

COTMA

- Heritage Preservation
- Personal interest
- The visitor
- The community
- The enthusiast
- For the future

SUSTAINABILITY

To survive as a heritage enterprise you need:

1. More money coming in than going out
2. Enough people and expertise to operate
3. A place to operate

SUSTAINABILITY

A sustainable heritage enterprise is one that achieves these 3 fundamentals – not today but in 50 years for now 100 years from now

SUSTAINABILITY

How do we achieve the fundamentals using Heritage Trams?

SUSTAINABILITY

What you are up against:

- Heritage spending is discretionary
- The internet
- Hollywood
- Sport
- Fun
- The economy

SUSTAINABILITY

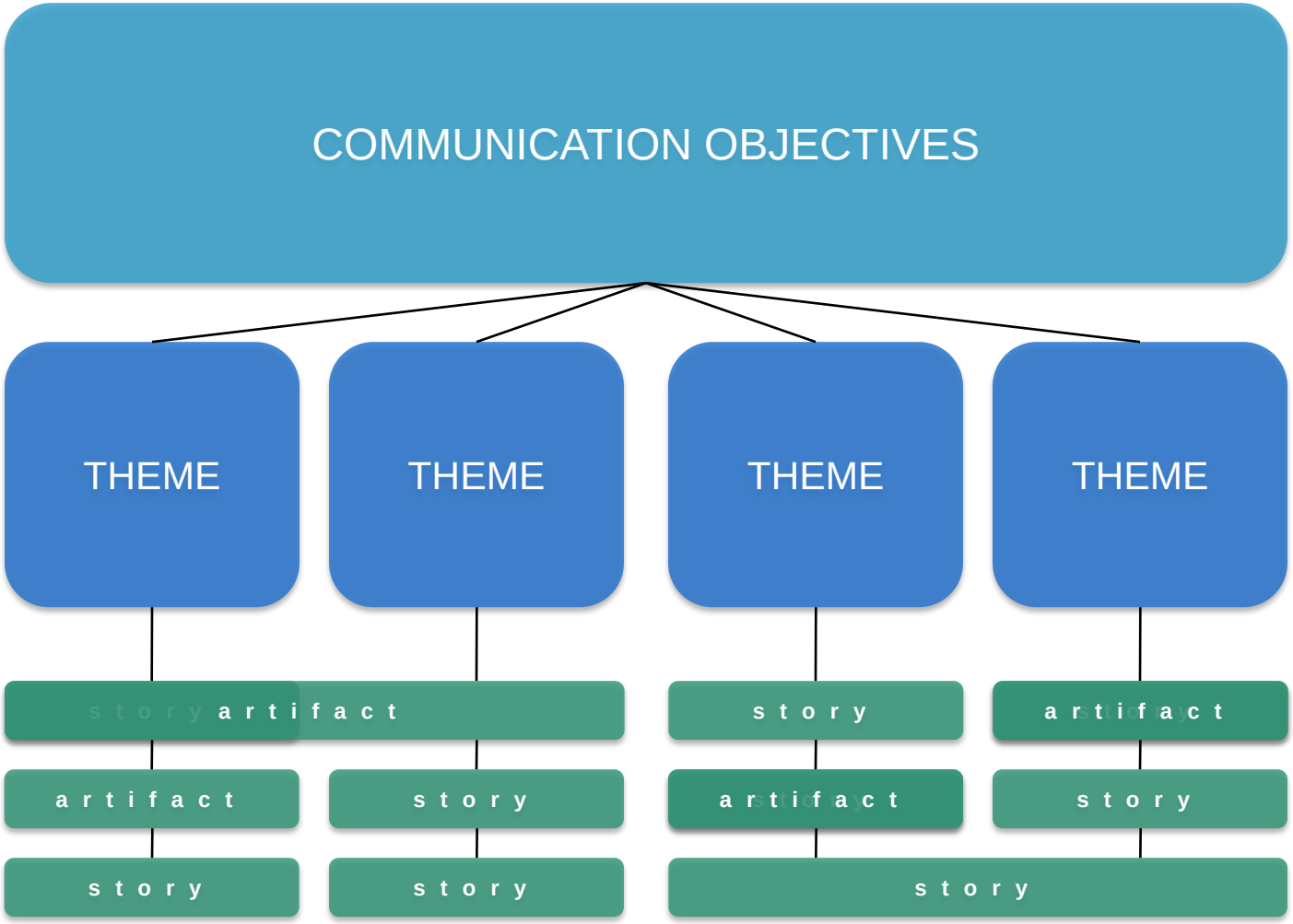
What you need to do:

- Engage
- Be relevant
- Be inclusive
- Communicate
- Make a difference

CASE STUDY – CAVANAUGH FLIGHT MUSEUM

CASE STUDY – CAVANAUGH FLIGHT MUSEUM

A THEMATIC FRAMEWORK



The museum is turned on its head with a focus on the purpose with the aircraft as tools

Why did Mr. Cavanaugh collect these aircraft.

WWII
Patriotism
Honoring Sacrifice
Adventure

Mission to preserve and commemorate.

COMMUNCATION OBJECTIVES

1. The war that protected society changed society.

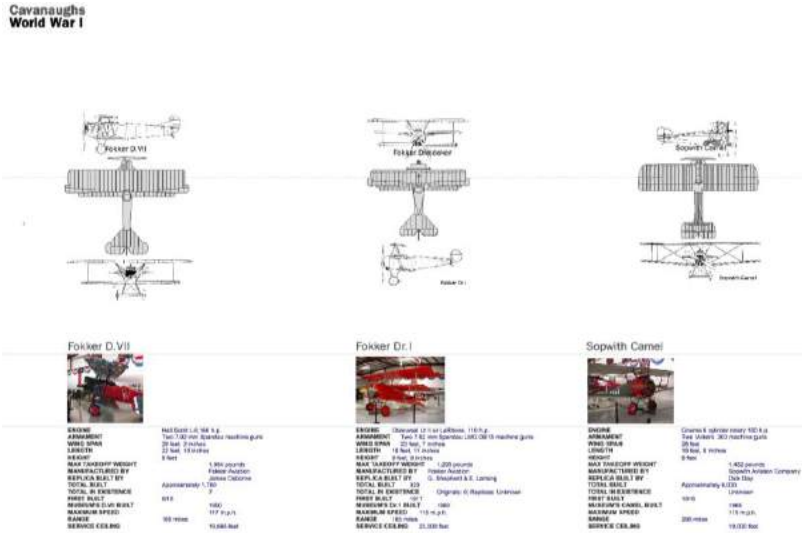
2. That war effort to protect the nation contributed to the development of our modern way of life.

3. Aviation is fundamental to that way of life and our freedom to enjoy it.



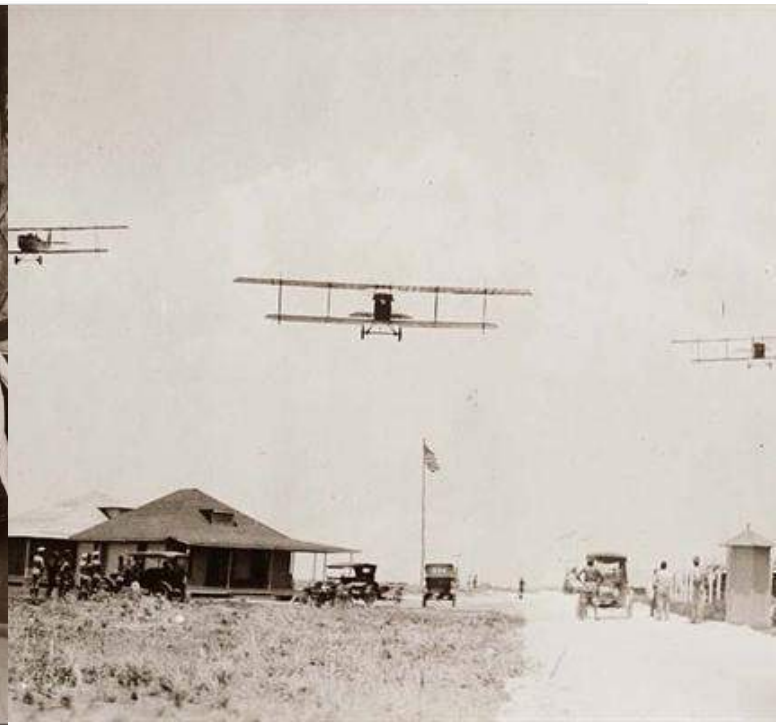
World War I

early aircraft history

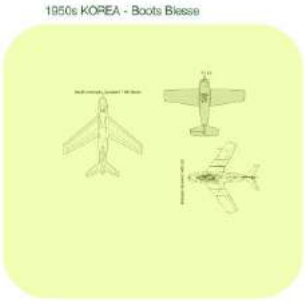










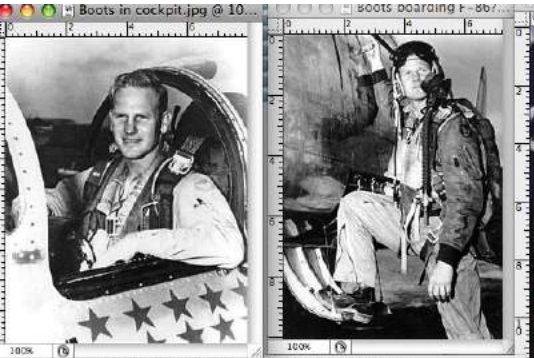


Korean War

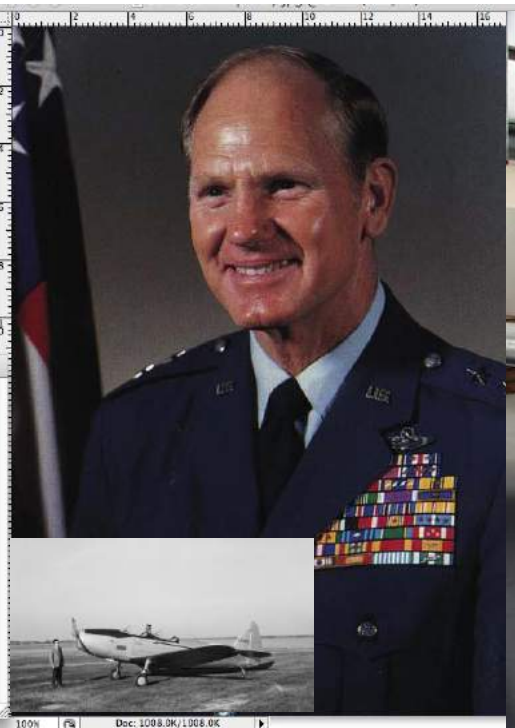
contrast technology of aircraft
Cornell v sabre

Boots Blesse

Major General Frederick C."Boots" Blesse, born in 1921 in Colón, Panama Canal Zone, graduated from the United States Military Academy in 1945. He flew two combat tours during the Korean War, completing 67 missions in F-51s, 35 missions in F-80s and 121 missions in F-86s. During the second tour in F-86s, he was officially credited with shooting down nine MiG-15s and one La-9.
At the time of his return to the United States in October 1952, he was America's leading jet ace.
General Blesse remained with fighter aircraft for practically his entire military career. During the 1955 Air Force Worldwide Gunnery Championship, he won all six trophies offered for individual performance, a feat never equaled. During the Vietnam Conflict, he served two tours in Southeast Asia; while on his first tour in 1967-1968, he flew 156 combat missions.
In December 1952 General Blesse went to Nellis Air Force Base, Nevada, where he served as a jet fighter gunnery instructor, squadron operations officer and squadron commander. He was a member of the Air Training Command Fighter Gunnery Team in 1954 and 1955. Both years this team won the Air Force Worldwide Fighter Gunnery Championship. During the 1955 gunnery meet, General Blesse, flying an F-86F aircraft, won all six trophies offered for individual performance, a feat that has never been equaled.
During this tour of duty, General Blesse wrote his fighter tactics book, No Guts, No Glory. This book has been used as a basis of fighter combat operations for the Royal Air Force, the U.S. Marine Corps, Chinese Nationalist, Korean Air Force, and U.S. Air Force since 1955. As recently as 1973, 3,000 copies were reproduced and sent to tactical units in the field.









Industry Threads

how was industry changed by war
how necessity of war expedited technology
what did infrastructure become after the war

Consolidated Aircraft Corporation
sudden influx of industry to Dallas - impact on community and family's
family's that remain in Dallas because of this industry







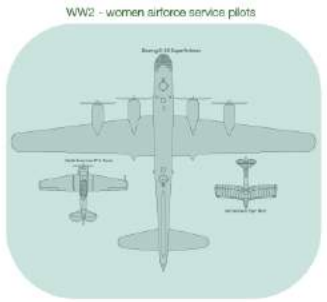
Life Threads

how were peoples lives changed by war
what did people do after the war

Betty Stine (born in Fort Worth)
trained at Avenger Field Sweetwater
killed on her final flight before graduation parachute failure
died at a young age, life cut short

explore the lives of other women in her Class 44-w-2
how their lives were changed by being WASPS

Betty Stine











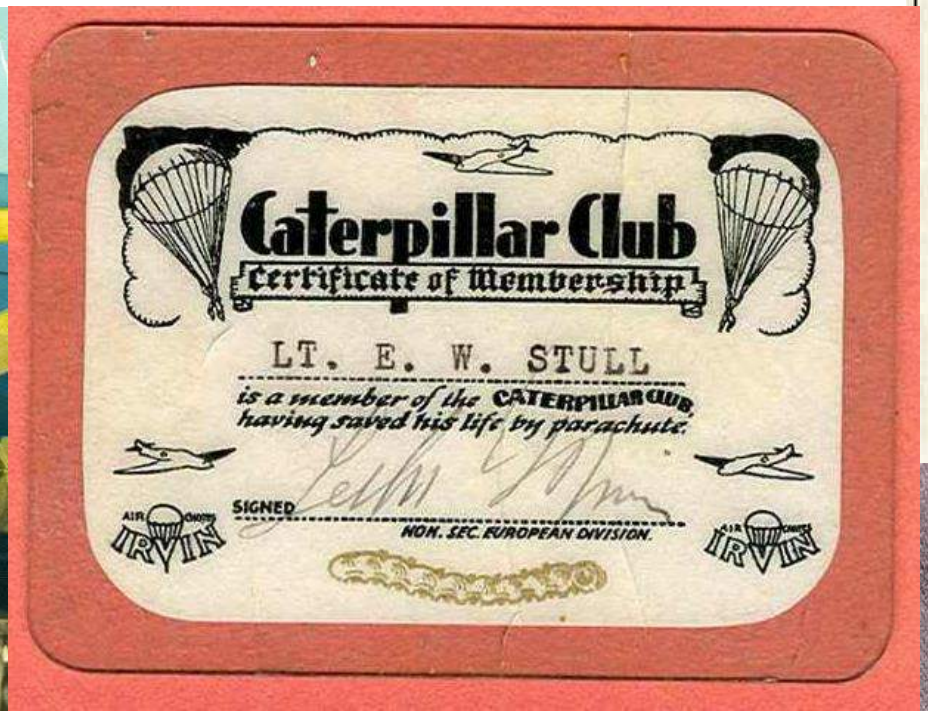
Bailing Out

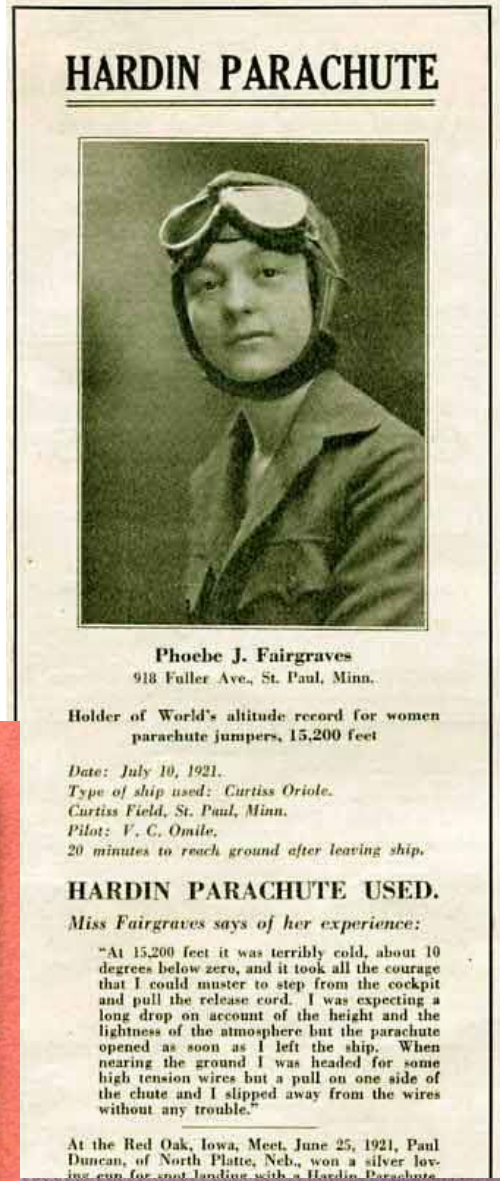
betty stine bailed out but didn't survive
boots blesse bailed out of F 86 (better technology)
caterpillar club
advance in technology parachutes
eject seats with parachutes and dinghys

On night Operations for home defense the right-hand engine suddenly exploded into flames - probably due to enemy fire. Control response was marginal and, after jettisoning canopy, the pilot lost control of the aircraft. Wireless Operator baled out and was severely wounded on landing with his parachute. Lt Fries could not regain sufficient control to try landing the burning aircraft and ejected. He landed unhurt by means of his parachute. The aircraft crashed at 01.25 hrs. 3 Km south of sɪ Hertogenbosch and was destroyed.

"Life depends on a silken thread"







HARDIN PARACHUTE

Phoebe J. Fairgraves
918 Fuller Ave., St. Paul, Minn.

Holder of World's altitude record for women parachute jumpers, 15,200 feet

Date: July 10, 1921.
Type of ship used: Curtiss Oriole.
Curtiss Field, St. Paul, Minn.
Pilot: V. C. Omile.
20 minutes to reach ground after leaving ship.

HARDIN PARACHUTE USED.

Miss Fairgraves says of her experience:

"At 15,200 feet it was terribly cold, about 10 degrees below zero, and it took all the courage that I could muster to step from the cockpit and pull the release cord. I was expecting a long drop on account of the height and the lightness of the atmosphere but the parachute opened as soon as I left the ship. When nearing the ground I was headed for some high tension wires but a pull on one side of the chute and I slipped away from the wires without any trouble."

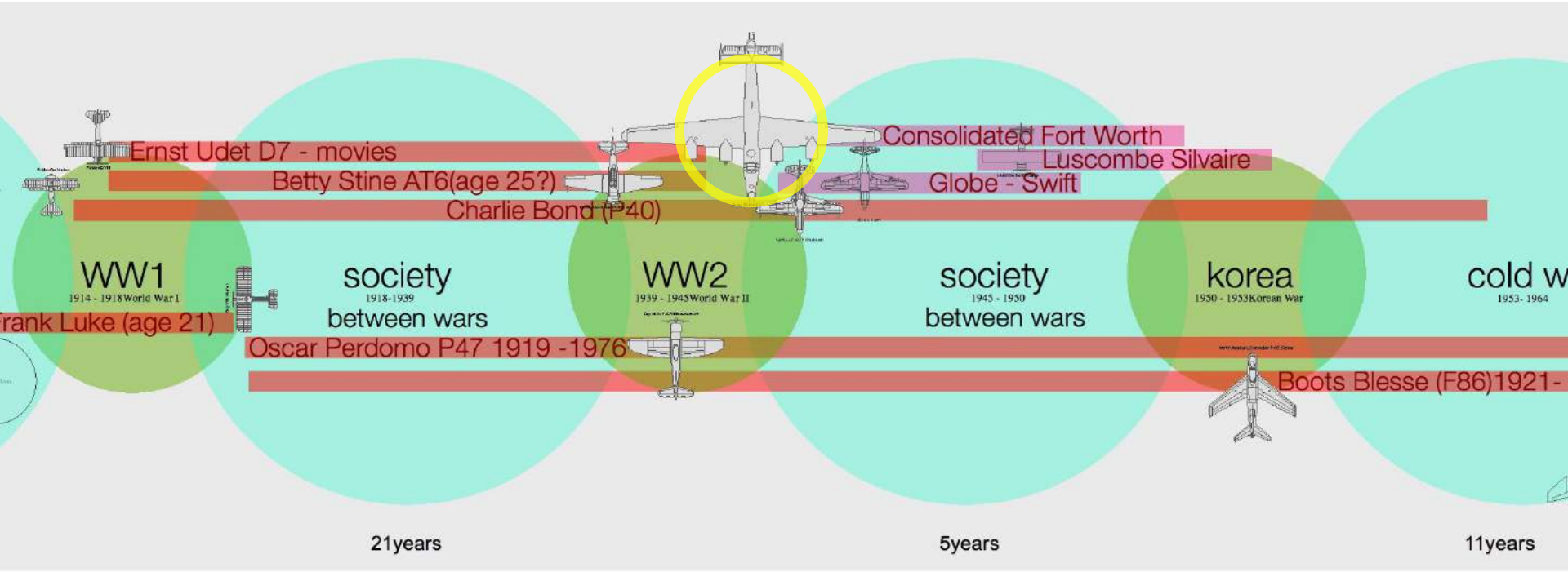
At the Red Oak, Iowa, Meet, June 25, 1921, Paul Duncan, of North Platte, Neb., won a silver lov-



CONTEXT

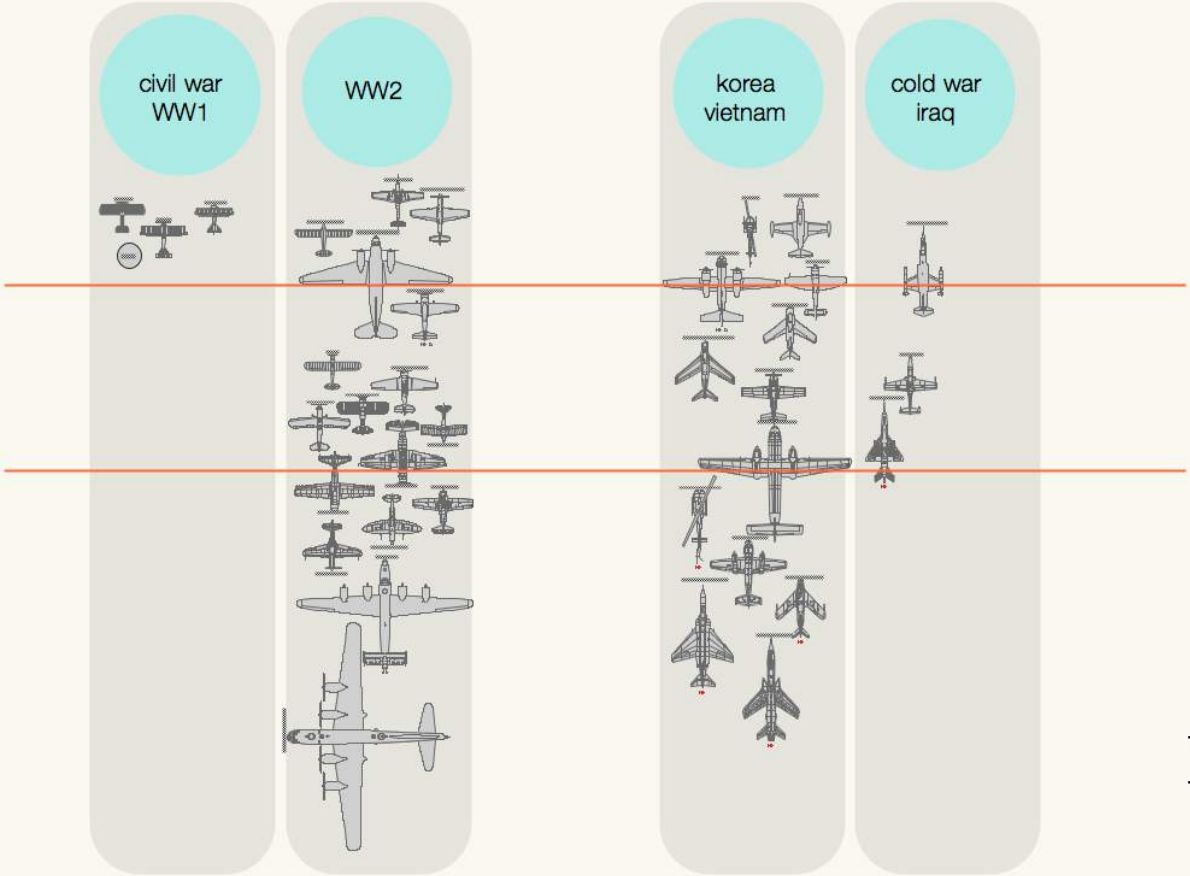
how was industry changed by war
how necessity of war expedited technology
what did infrastructure become after the war

B-24
built by Consolidated factory in Fort Worth in 1941, 1500 familys relocated, many who remain in Dallas today



THEMATIC PLANNING OPTIONS





testing the thematic frameworks

EDUCATION CURRICULUM MATRIX

CAVANAUGH FLIGHT MUSEUM
EDUCATION CURRICULUM CONTENT

FREEMAN RYAN DESIGN

June 2009

TEKS Curriculum

Grade	Subject	TEKS requirements	Museum Thematic Area	Museum Application	relevance ***	TEKS Glossary / Biography Reference - Other Comments
Grade 1 6 yrs						
Grade 2 7 yrs	(1) History. The student understands the historical significance of landmarks and celebrations in the community, state, and nation	(A) explain the significance of various community, state, and national celebrations such as Memorial Day , Independence Day, and Thanksgiving	Memorial Day	memorial day, the museum will be known as the most relevant place to go on Memorial day, host to commerorative events	***	
Grade 3 8 yrs	(3) History	The student understands the concepts of time and chronology. (A)use vocabulary related to chronology, including ancient and modern times and past, present, and future times; (B)create and interpret timelines; (C)describe historical times in terms of years, decades, and centuries.	Whole Museum	Timelines throughout museum	***	
	(16) Social studies skills.	(F) use appropriate mathematical skills to interpret social studies information such as maps and graphs.	Whole Museum	Maps and graphs will be featured throughout museum, including historical maps, and used as an interpretive tool	*	
Grade 4 9 yrs	(4) History The student understands the political, economic, and social changes in Texas during the last half of the 19th century.	(A) describe the impact of the Civil War and Reconstruction on Texas	WW1 Civil War New Horizons	Civil War discussed/explored through hot air balloons Thaddeus Lowe Use of historic maps and photographs	***	A civil war is a war between factions or sections within a country. The U.S. Civil War (1861-1865) resulted from years of conflict between competing sectional interests. These included slavery and disagreements over its continuance and expansion, the sovereignty of states, and the conflicting economic and social structures of the North and South. Texas played a key role in the coming of the war. The admission of Texas as a slave state in 1845 marked the first significant westward expansion envisioned by President James K. Polk. The Treaty of Guadalupe-Hidalgo transferred more western territory to the United States and reinvigorated the sectional conflict over the expansion of slavery into territories. Texans were divided in their loyalties, some favoring nationalism and the union and others adopting the sectional views of southern Democrats. Fear over the ability of the United States to protect the Texas-Mexico border caused some Texans to rethink their allegiances. On January 28, 1861, convention delegates voted 166 to 8 to secede from the Union and join the Confederate States of America. Texas Confederates saw action in the western, eastern, and southern portions of the state as well as on major battlefronts throughout the Confederacy. The last land battle fought in the Confederacy occurred in south Texas in May 1865. As many as 68,500 Texans served the Confederacy, most notably in Terry's Texas Rangers, Ross's Texas Brigade, and Hood's Texas Brigade.
	(5) History. The student understands important issues, events, and important issues, events, and individuals of the 20th century in Texas.	(A) identify the impact of various issues and events on life in Texas such as urbanization, increased use of oil and gas, and the growth of aerospace and other technology industries	WW2	rapid advance of aircraft technology during WW2, population impact of Factory Workers, whole suburbs born eg. Liberator Village 500 to 10,000 as Consolidated opened B24 factory	***	Technological Innovations Technological innovations are new ways of doing things which are based in a technology. The telephone revolutionized the way people communicated because it allowed people to hear the voices of friends and family living miles away. Travel became easier due to improvements in transportation which began with systems of canals and railroads and expanded to include automobiles, interstate roadway systems, and airlines with international flights. Computers and software revolutionized the ways people process information and communicate. Computers connected to the Internet allow people to share information and conduct personal and professional business nearly instantaneously and relatively inexpensively . The demands of new technologies and their applications promote further innovation to meet changing needs.
	(6) Geography. The student uses geographic tools to collect, analyze,and interpret data.	(A) apply geographic tools, including grid systems, legends, symbols, scales, and compass roses, to construct and interpret maps	Whole Museum	Maps and graphs will be featured throughout museum, including historical maps	*	
	(13) Economics. The student understands patterns of work and economic activities in Texas	(A) explain how people in different regions of Texas earn their living, past and present	WW2	During war farmers became factory workers, women entered workforce and many stayed there.	***	Mass Production Making many of the same thing is termed mass production. Usually mass production depends on technology , standardized parts, an assembly line process, a labor force, factories to house machinery and workers, a transportation network to get the supply from the factory to the consumers, a marketing campaign to convince people to buy the supply , and a price that meets the demand of customers. Henry Ford made mass production possible through the use of the assembly line to build the Model T. In 1909 his car cost $950 but by 1916 it cost only $360. Mass production of one product may encourage growth of other industries. In order to finish a car , the Ford Motor Company used steel, rubber, glass, and upholstery. Increasing numbers of cars on the road affected urban and suburban development, the need for gas stations and motels and the care and surfacing of roads. Mass production can cause an economy to grow . At the same time, mass production can lead to a decline in the number of things made by hand by artists and craftspeople. It can increase pollution and can reduce variation in society .

THEMATIC FRAMWORK

COLLECTION STATEMENT OF ORIGIN:

FOUNDED IN PASSION AND PATRIOTISM, THE WARBIRD COLLECTION OF THE CAVANAUGH FLIGHT MUSEUM HONORS, CELEBRATES AND COMMEMORATES ALL THOSE WHO CONTRIBUTED TO THE STORY OF AVIATION IN TEXAS.

COMMUNICATION OBJECTIVES:

1. THE WARS FOUGHT TO PROTECT OUR NATION AND SOCIETY HAVE PROFOUNDLY CHANGED OUR NATION AND SOCIETY, CONTRIBUTING IN MANY WAYS TO THE DEVELOPMENT OF OUR MODERN WAY OF LIFE
2. AVIATION TODAY IS FUNDAMENTAL TO THAT WAY OF LIFE AND OUR FREEDOM TO ENJOY IT.

STORY THREADS

NEW HORIZONS

CIVIL WAR WW1 COLLECTION

AVIATION CHANGED THE OUTCOMES OF CONFLICT & GAVE A NEW PERSPECTIVE ON THE WORLD

example industry storys:
- 1923 Fort Worth worlds only source of helium
- Ballooning history in Texas
- 1926 First Dallas Airmail

example hero storys:
- Frank Luke WW1 hero
- Ernst Udet flew D7
- Observation balloons
- Intrepid Civil war balloon
- Richtofen & Arthur Brown

- Fokker D7
- Fokker Dr.I
- Sopwith Camel
- Early Hot air balloon
- 'Intrepid' civil war balloon

POWER FROM THE AIR

WW2 COLLECTION

AVIATION BECAME THE MOST POWERFUL FORCE IN A WORLD AT WAR

example industry storys:
- Globe Swift factory
- 1940 Consolidated set up in Dallas
- 1941 Consolidated Vultee B-24 factory
- WASPs
- Arthur Young — Bell 47 designer
- Aircraft/Motorcar shared technology/ Merlin Engines
- Texas training Field predominant
- T6 Manufactured by North American Aviation, Dallas

example hero storys:
- Oscar Perdomo — Texas hero
- Drury Callaghan — Texas hero
- Hal Johnson — original Mustang pilot
- Betty Stine — Texas WASP pilot
- Florine Miller-Watson — Texas WASP pilot
- Charlie Bond — flew P40
- Drury Callaghan — flew Mustang
- William Rector — scrapbook in archive
- Factory Workers

- Casa 2111 Heinkel He-111
- Douglas Skyraider
- Grumman TBM-3E Avenger
- ✱ North American B-25
- CAF Consolidated B24
- CAF Boeing B-29 Superfortress
- Curtiss P-40 N Warhawk
- Grumman Wildcat
- Chance-Vought F4 U Corsair
- Messerschmitt Me-109
- ✱ North American P-51 Mustang
- Republic P-47N Thunderbolt
- Supermarine Spitfire Mk. VIII
- Boeing N2S-4 Stearman Kaydet
- Boeing PT 13 Stearman Kaydet
- de Havilland Tiger Moth
- Fairchild PT-19 Cornell
- North American AT-6 Texan
- North American AT-6 Texan
- Ryan PT-22 Recruit
- Vultee SNV-2/BT-13 Valiant
- Douglas C-47 Skytrain (DC3)
- Piper L-4J
- Aeronca L-3B 'Grasshopper'
- L-5 Sentinel Stinson
- Douglas A-26 Invader

OUR SHARED PROSPERITY

CIVILIAN AVIATION COLLECTION

AVIATION TODAY IS FUNDAMENTAL TO OUR WAY OF LIFE

example industry storys:
- Lockheed Martin
- Bell Helicopter HQ
- American Airlines
- Vought Aviation

TEXAS INDUSTRY & COMMUNITY

PEOPLE & TEXAS HEROES

- Piper J-3 Cub
- Pitts Special
- Christen Eagle II
- Grumman HU 16 Albatross
- Boeing 727
- Lear Jet 23
- Lockheed Jetstar
- Cessna Citation 10
- Cessna 150
- Cessna 172
- Falcon 10
- Bonanza
- Luscombe Silvaire
- Globe Swift

ENSURING FREEDOM

KOREAN WAR VIETNAM WAR COLLECTION

INDUSTRY AND COMMUNITY WORK TOGETHER TO DEVELOP TECHNOLOGY

example industry storys:
- Bell 47 Built at the Bell plant in Fort Worth Texas
- 1948 United Aircraft Corp moved to Dallas 1500 employees
- 1945 Luscombe Silvaire
- Charlie Bond after service worked at Texas Instruments

example hero storys:
- Boots Blesse — flew F86 in Korea
- Bob Schrader — crew chief on the Caribou
- Drury Callahan — flew F86 in Korea
- Oscar Perdomo — son killed in vietnam in a Bell 47

- Bell Helicopter OH-13D Sioux
- Bell Helicopter 47 OH-13D Sioux
- ✱ Grumman F9F-2B Panther
- Hawker T.Mk 20 Sea Fury.
- Mikoyan Gurevich MiG-15
- North American T-28B Trojan
- Canadair F-86 Sabre
- Bell Helicopter UH-1B Iroquois
- De Havilland CV-2B Caribou
- USMC Sikorsky H34 helicopter
- Cessna Bird Dog L-19
- OH-6 Hughes helicopter

OUR SHRINKING WORLD

COLD WAR COLLECTION

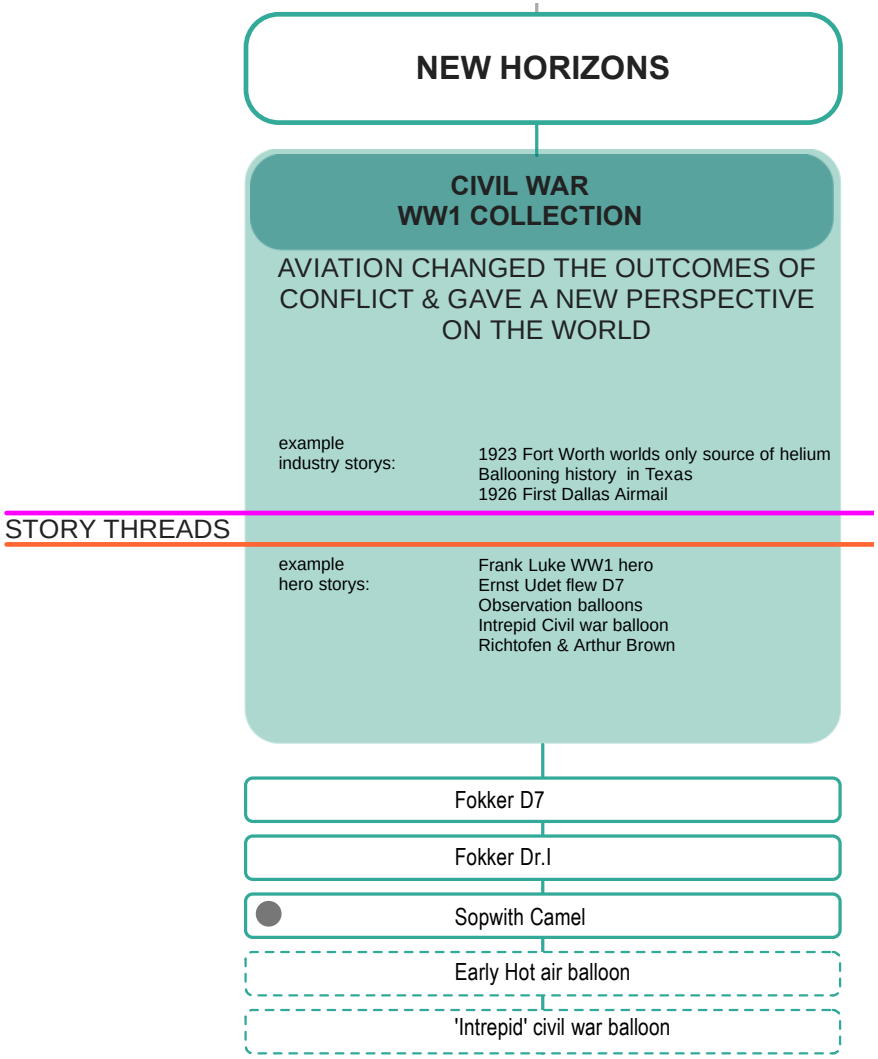
AVIATION UNITES THE WORLD WHILE ENABLING INSTANT GLOBAL CONFLICT

example industry storys:
- development of jet technology
- 1961 F-104 deployed to "Berlin Crisis"

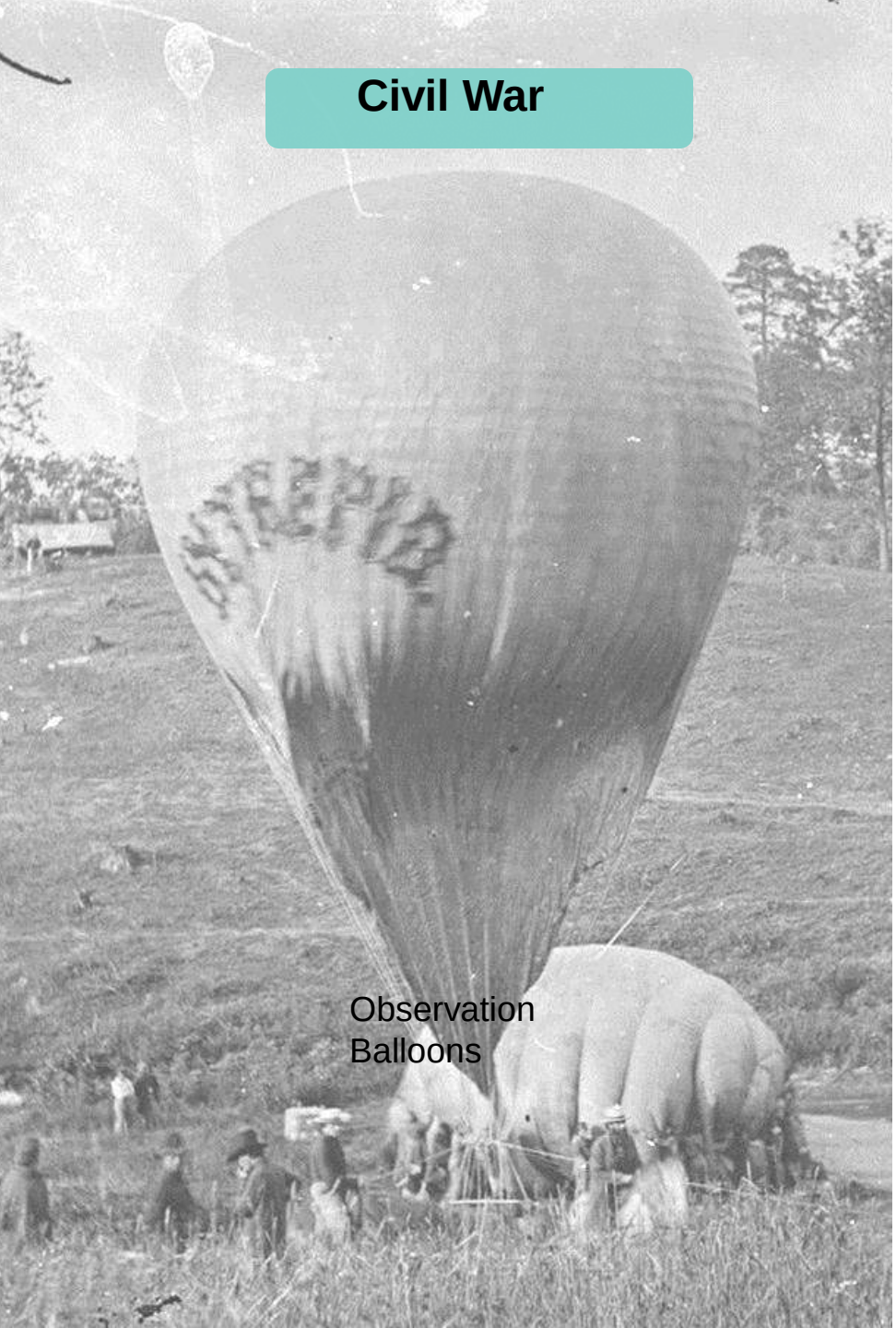
- Lockheed F-104A Starfighter
- Grumman OV-1D Mohawk
- ✱ McDonnell-Douglas Phantom
- Mikoyan Gurevich MiG-17F
- Mikoyan Gurevich MiG-21U
- Panstwowe Zaklady Lotnicze
- Republic F-105F Thunderchief
- Grumman S2F-1 Tracker
- Vought A7 Corsair

KEY COLOURED FLAGS INDICATE THEMATIC ALTERNATIVES

- NEW OPPORTUNITYS OF AVIATION
- POWER FROM THE AIR
- OUR SHARED PROSPERITY
- ENSURING FREEDOM
- OUR SHRINKING WORLD
- Flys Often
- ✱ Collection Feature
- Pending Acquisition
- Texas origin / relevance

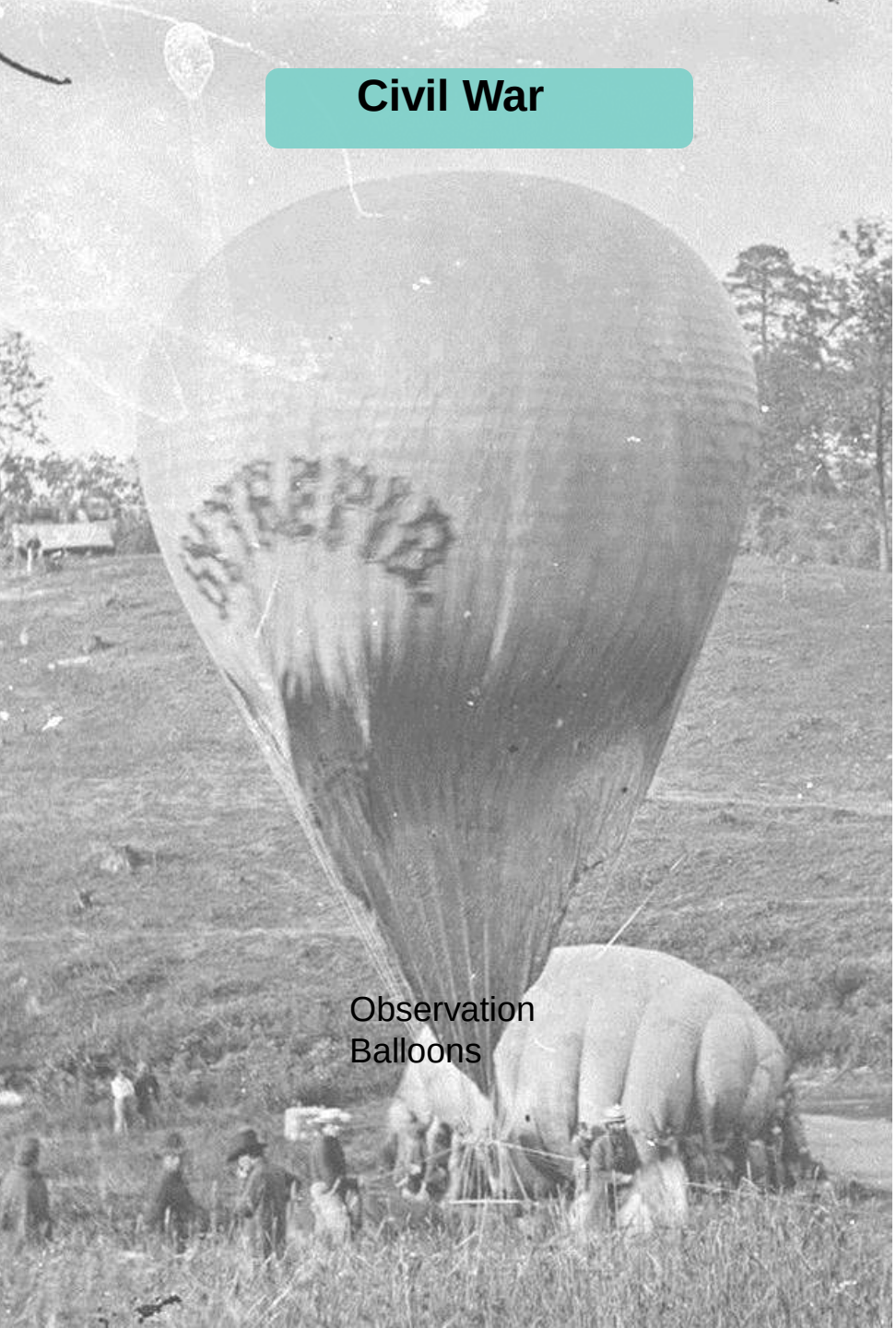

NEW HORIZONS
CIVIL WAR
WW1 COLLECTION
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1923 Fort Worth worlds only source of helium
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Intrepid Civil war balloon
Richtofen & Arthur Brown
Fokker D7
Fokker Dr.I
Sopwith Camel
Early Hot air balloon
'Intrepid' civil war balloon

Civil War



Observation Balloons

Civil War



Observation Balloons

World War I



Civil War

between conflicts

World War One

Balloon races

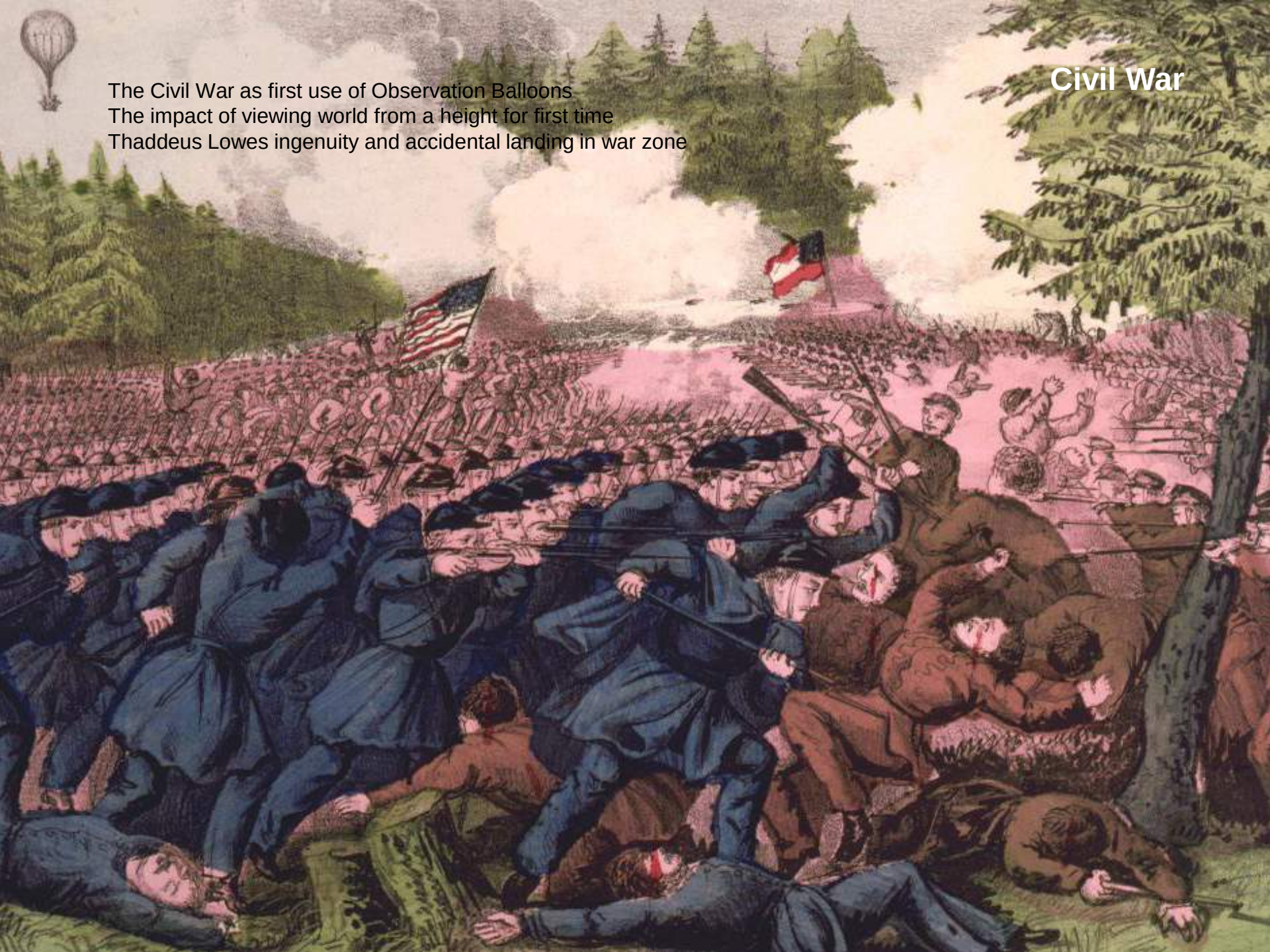
Recreational ballooning

Technology

Ballooning developments

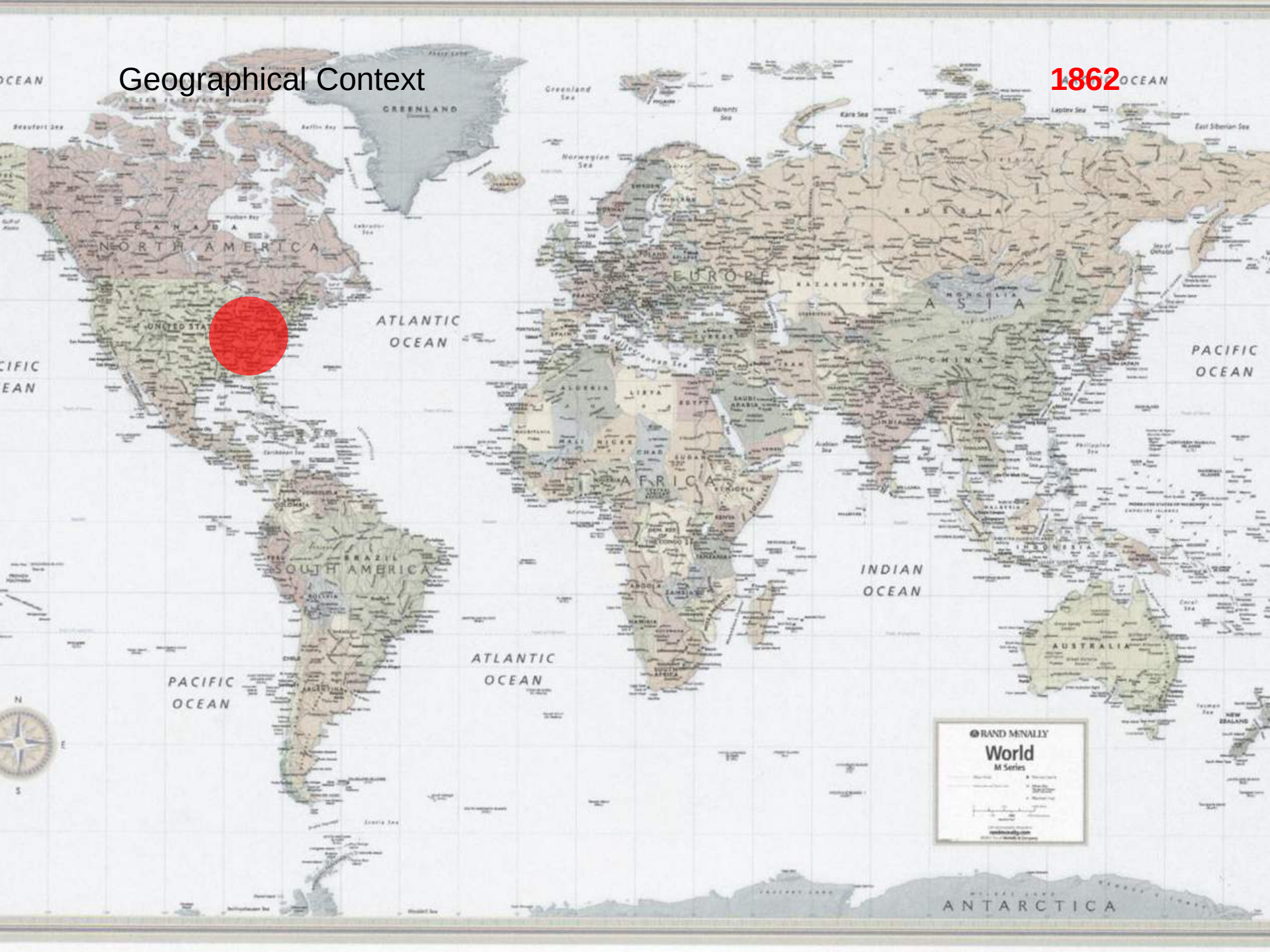
Civil War

The Civil War as first use of Observation Balloons
The impact of viewing world from a height for first time
Thaddeus Lowes ingenuity and accidental landing in war zone



Geographical Context

1862



Historical Context

1862

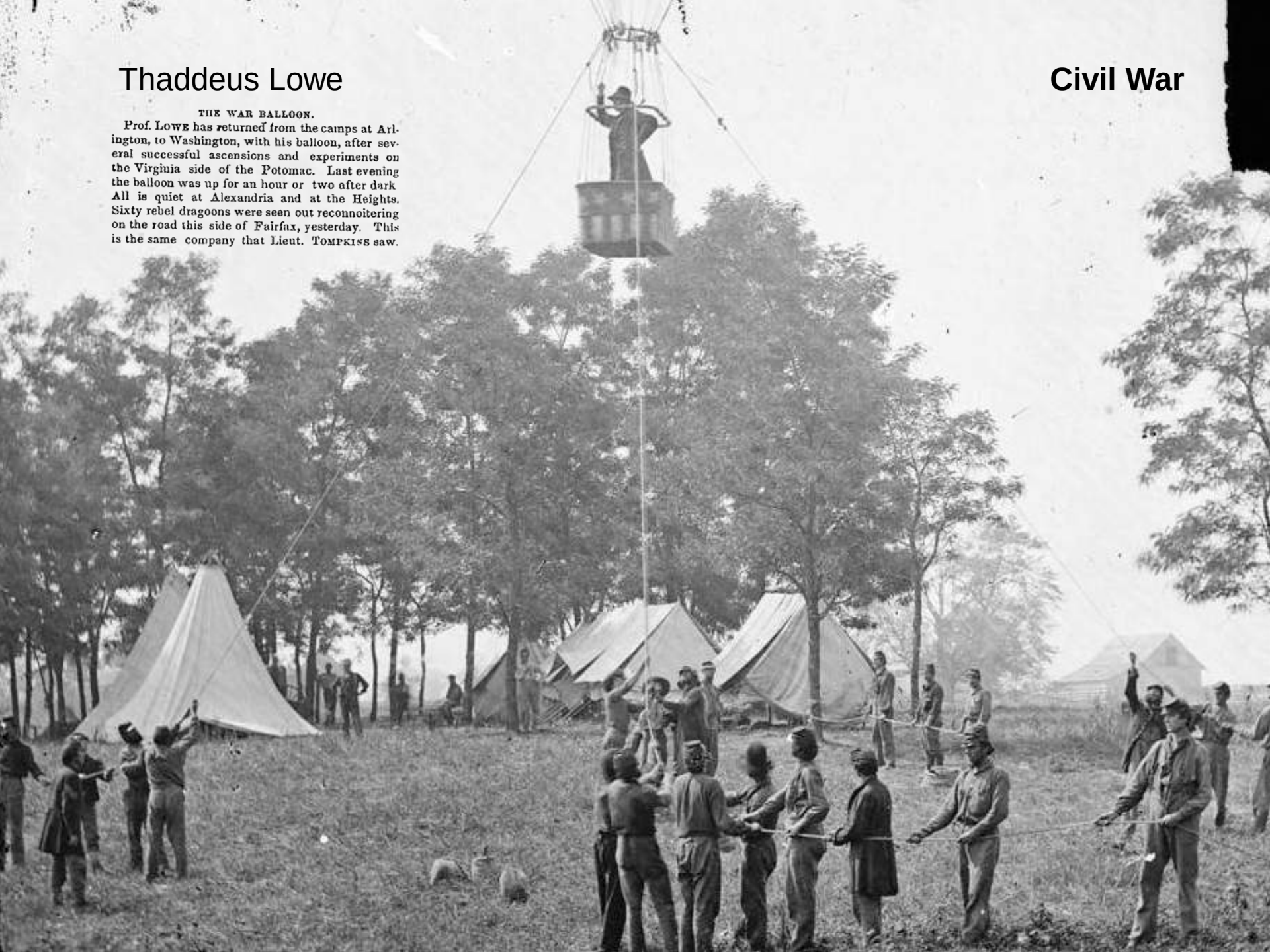


Thaddeus Lowe

Civil War

THE WAR BALLOON.

Prof. LOWE has returned from the camps at Arlington, to Washington, with his balloon, after several successful ascensions and experiments on the Virginia side of the Potomac. Last evening the balloon was up for an hour or two after dark All is quiet at Alexandria and at the Heights. Sixty rebel dragoons were seen out reconnoitering on the road this side of Fairfax, yesterday. This is the same company that Lieut. TOMPKISS saw.



View from the sky



THE CENTENNIAL—BALLOON VIEW OF THE GROUNDS.

Balloon Races
USA and Europe

Between conflicts







World War I




World War I

Historical Context

1916









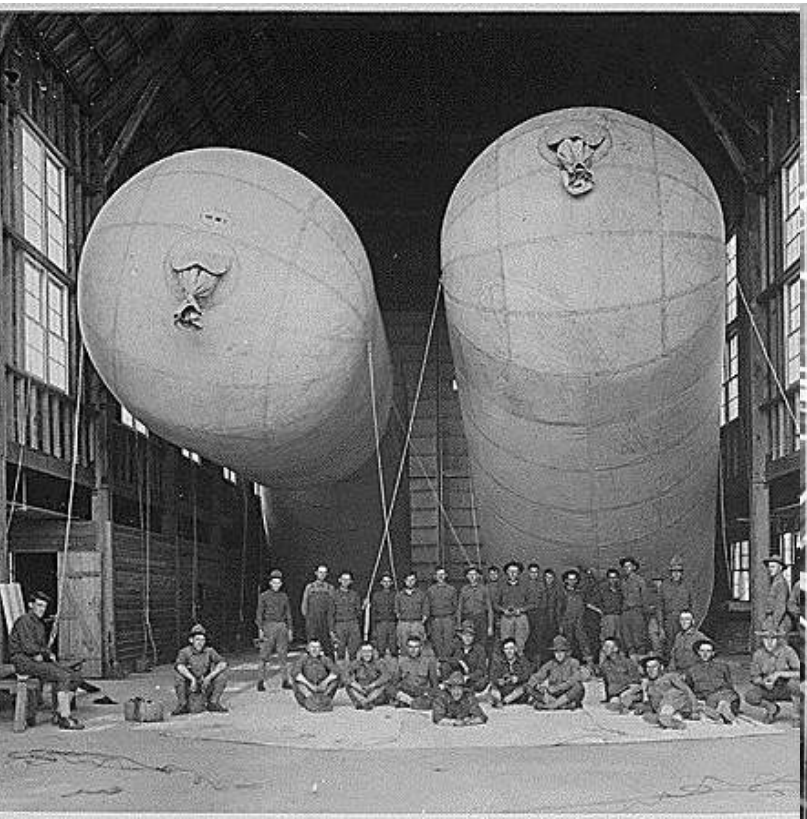




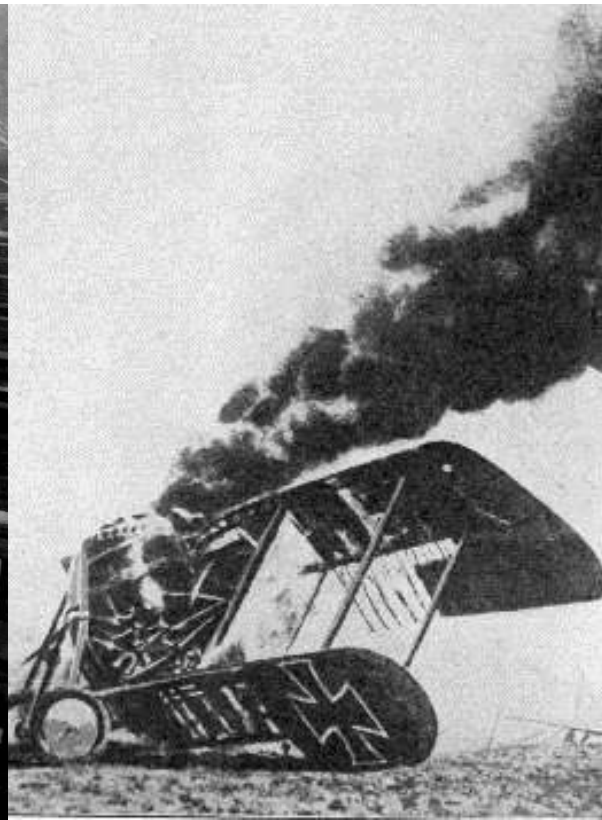


Observation balloons
WWI observation trees

World War I







World War I

Frank Luke

Frank Luke - born in Arizona -trained in Hicks Field Texas shot down Observation Balloons WWI Ace
died at age of 21



Eddie Rickenbacker

World War I

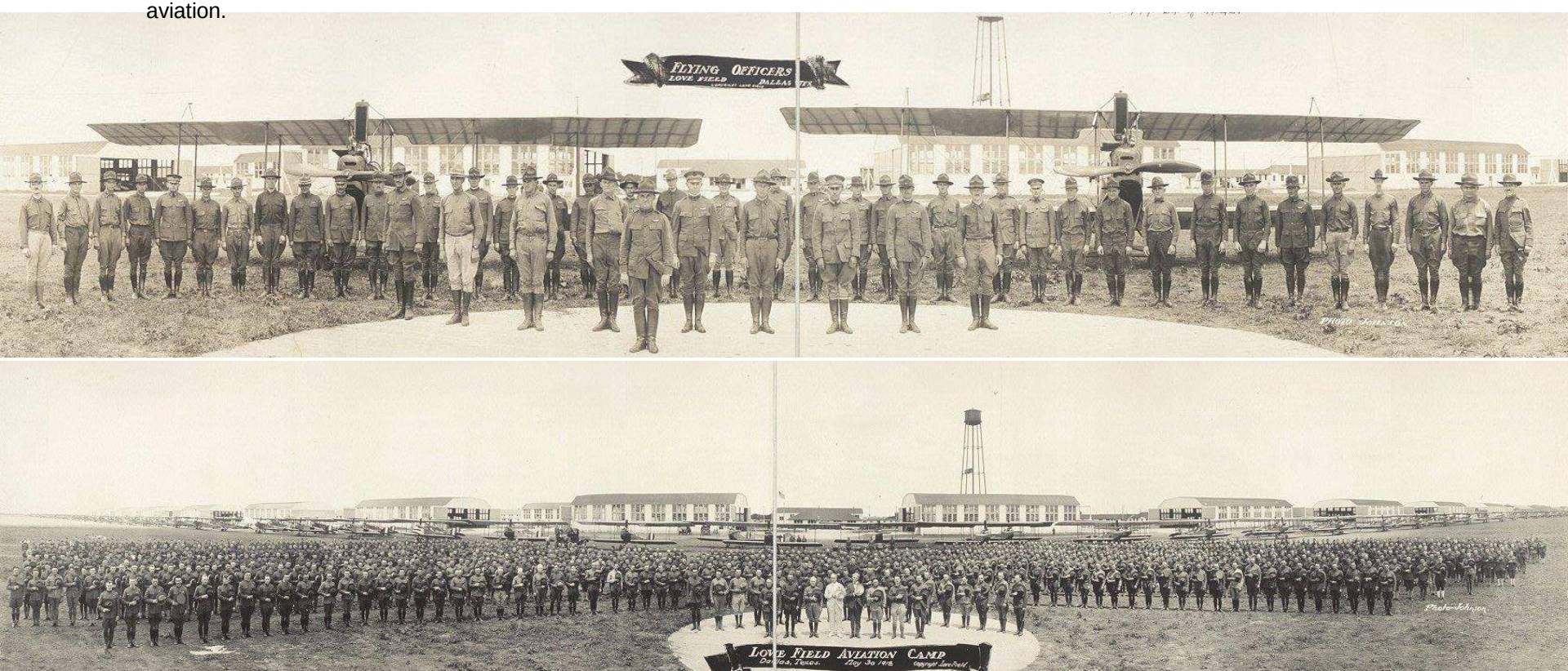
By 1910, Rickenbacker was racing his employer's cars, competing in local dirt-track races to promote the speed and reliability of the product. He later worked for Fred Duesenberg and drove his cars in the Indianapolis 500.[1] Touted as the first man to drive a mile a minute, he received the sobriquet "Fast Eddie". Rickenbacker raced in the 1912, 1914, 1915 and 1916 Indianapolis 500's. His only finish in the race was in 1914, when he was tenth. In the other three races, he did not finish due to car failure. Notably, in the 1916 race, he started on the front row in second place.

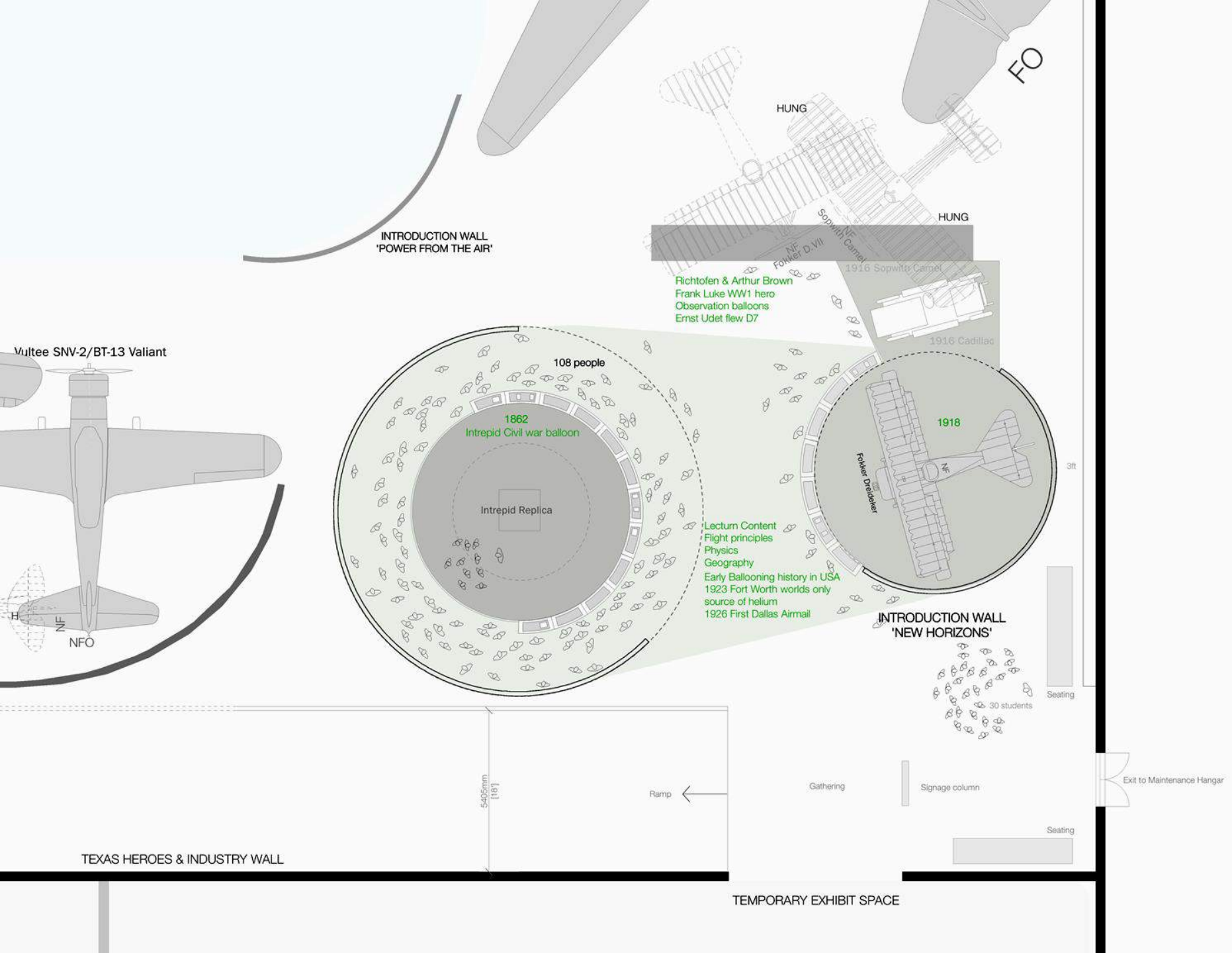


World War I

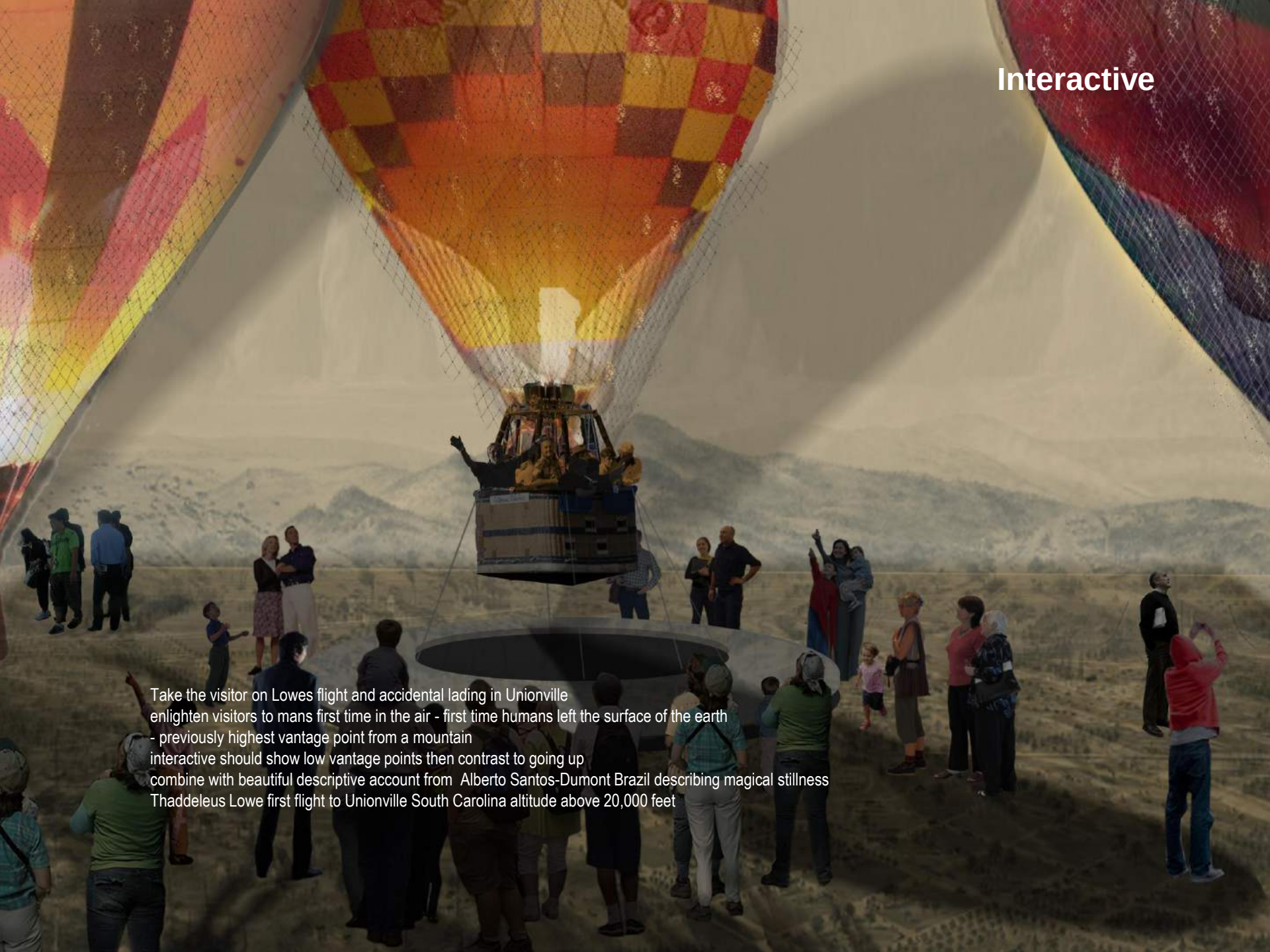
Training Bases
Dallas Area

In 1917 the federal government entered into an agreement with Great Britain in 1917 to build and equip aviation bases in and around Fort Worth to train Canadian and American aviators for the war effort. Three fully equipped aviation training bases were constructed on land provided by local citizens through the efforts of the Fort Worth Chamber of Commerce – one near Saginaw (Hicks Field), at Everman (Barron Field) and at Benbrook (Carruthers Field), all operating under the name of Camp Talliaferro and commanded from Hicks Field. Interestingly, the first military airfield in Texas, Fort Sam Houston in San Antonio, was built on land sold to the Army by businessman A P Barrett, who would later move to Fort Worth and become a pioneer in Fort Worth civil aviation.




FO
HUNG
HUNG
INTRODUCTION WALL
'POWER FROM THE AIR'
Sopwith Camel
NF
Fokker D.VII
NF
1916 Sopwith Camel
Richtofen & Arthur Brown
Frank Luke WW1 hero
Observation balloons
Ernst Udet flew D7
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Vultee SNV-2/BT-13 Valiant
108 people
1862
Intrepid Civil war balloon
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3ft
Lecturn Content
Flight principles
Physics
Geography
Early Ballooning history in USA
1923 Fort Worth worlds only
source of helium
1926 First Dallas Airmail
INTRODUCTION WALL
'NEW HORIZONS'
H
NF
NFO
30 students
Seating
5405mm
[181"]
Ramp
Gathering
Signage column
Exit to Maintenance Hangar
Seating
TEXAS HEROES & INDUSTRY WALL
TEMPORARY EXHIBIT SPACE

Interactive



Take the visitor on Lowes flight and accidental lading in Unionville
enlighten visitors to mans first time in the air - first time humans left the surface of the earth
- previously highest vantage point from a mountain
interactive should show low vantage points then contrast to going up
combine with beautiful descriptive account from Alberto Santos-Dumont Brazil describing magical stillness
Thaddeleus Lowe first flight to Unionville South Carolina altitude above 20,000 feet

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OUR SHRINKING WORLD

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During WWII, the Army Air Forces lost more than 4,500 aircraft in combat against the Japanese Army and Naval Forces in the war. During the same time, the AAF lost more than 7,100 Aircraft in the United States to accidents in training and transportation. Such accidents claimed the lives of more than 15,530 pilots, crew members and ground personnel - the stories of their deaths are largely forgotten.

Army Air Forces Statistical Digest - World War II

Table 214 -- Airplane Accidents in Continental US, By Principal Model of Airplane - Number and Rate: 1942 to 1945

(Rates are per 100,000 flying hours.)

12824

Year	B-29	B-17	B-24	B-25	B-26	A-20	A-26	A-36	P-38	P-39	P-40	P-47	P-51	P-63	F-4/5	F-6	C-46	C-47/53	C-
1941-1945 All Accidents																			
Number	272	1,589	1,713	921	739	728	181	226	1,403	1,934	3,569	3,049	824	251	223	14	145	604	22
Rate	40	30	35	33	55	131	57	274	139	245	188	127	105	131	145	62	29	20	18
Fatal Accidents	63	284	490	233	223	167	29	24	337	369	324	404	131	39	48	2	19	109	4
Fatalities	461	1,757	2,796	936	993	303	77	24	379	395	350	455	137	47	52	2	94	648	16
Airplanes Wrecked	119	479	746	446	408	331	50	69	758	865	967	1,125	358	109	127	7	39	181	5
1942																			
Number	-	146	123	151	165	219	-	9	247	414	798	106	3	-	40	-	2	49	1
Rate	-	55	75	104	162	206	-	409	234	351	507	245	102	-	292	-	a	26	a
Fatal Accidents	-	28	31	39	52	47	-	2	67	80	78	13	1	-	10	-	-	14	-
Fatalities	-	183	165	185	249	88	-	2	76	83	94	14	1	-	10	-	-	93	-
Airplanes Wrecked	-	46	46	66	88	87	-	3	124	171	202	41	1	-	21	-	-	23	-
1943																			
Number	5	539	457	284	304	282	2	193	503	904	1,070	958	186	2	54	-	24	212	1
Rate	72	39	39	44	65	155	a	273	165	228	297	163	210	a	218	-	59	31	38
Fatal Accidents	3	120	157	85	85	65	1	20	112	186	108	133	28	-	9	-	4	40	-
Fatalities	46	789	1,023	376	382	127	2	20	132	193	111	145	30	-	9	-	12	266	-
Airplanes Wrecked	3	182	240	139	159	134	1	56	267	403	285	380	72	1	26	-	8	54	1
1944																			
Number	88	638	779	239	195	182	44	23	467	590	1,280	1,303	318	136	83	3	46	255	12
Rate	59	25	33	24	37	78	84	248	128	228	127	122	111	128	159	82	32	19	38
Fatal Accidents	21	105	233	62	66	44	9	2	111	99	102	183	52	25	16	-	5	41	2
Fatalities	150	598	1,268	212	280	74	29	2	118	115	110	217	54	27	18	-	29	212	7
Airplanes Wrecked	41	203	359	123	123	92	14	10	258	278	360	474	137	69	46	2	11	78	2
1945																			
Number	179	266	354	247	75	45	135	1	186	26	421	682	317	113	46	11	73	88	8
Rate	34	23	29	24	31	127	51	a	78	156	115	94	79	133	73	58	23	11	9
Fatal Accidents	39	31	69	47	20	11	19	-	47	4	36	75	50	14	13	2	10	14	2
Fatalities	265	187	340	163	82	14	46	-	53	4	35	79	52	20	15	2	53	77	9
Airplanes Wrecked	75	48	101	118	38	18	35	-	109	13	120	230	148	39	34	5	20	26	2

a Rate is less than 0.5

Source: Office of Flying Safety

Training, Love Field Texas



Images UTD library

A PROUD PEOPLE

Community involvement in war
Heroes on homefront
Impact on communities and families
manufacture

















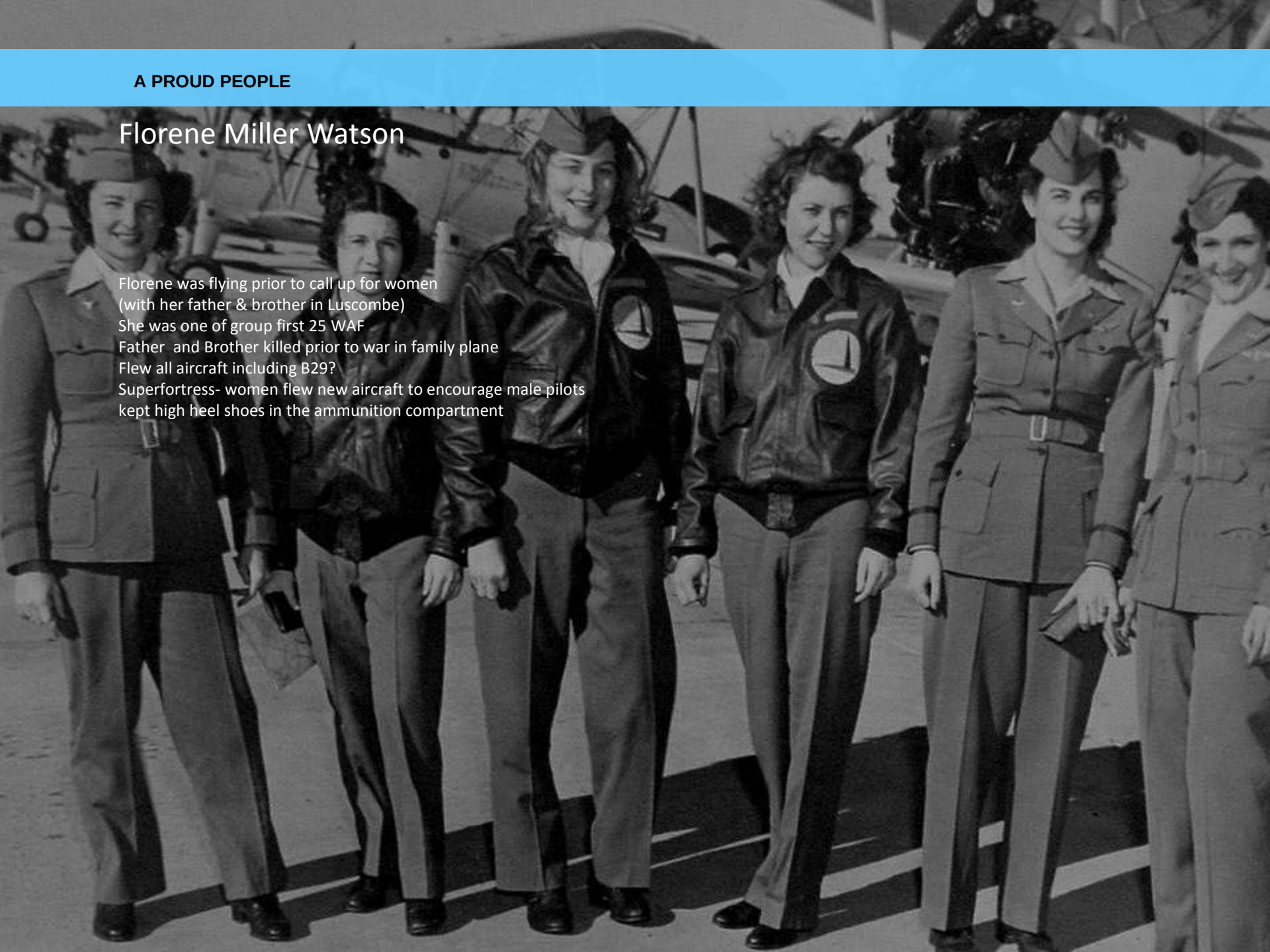


Image Henry Clay Grave
UTD library





Florene Miller Watson



Florene was flying prior to call up for women
(with her father & brother in Luscombe)
She was one of group first 25 WAF
Father and Brother killed prior to war in family plane
Flew all aircraft including B29?
Superfortress- women flew new aircraft to encourage male pilots
kept high heel shoes in the ammunition compartment

Liberator Village TX

WWII



Liberator Village

Barbara Brinkley..... White Settlement became General Dynamics also . I know that the plant is still open there, but now it's Lockheed. Among the folks who lived there at the time we did, it was just called "the bomber plant". I know B-24's were made there among other planes. Since I only turned five yrs old about a week after the war ended, I don't have a lot of memories, but some. I also have pictures of the housing area called Liberator Village.

I do have another article from the same Ft worth paper in 1990 that tells some information-I will quote some things as it is really interesting, I think-

"The aircraft from Lockheed Martin ascend abruptly now, but in 1943, lumbering B-24 Liberators struggled over the rooftops. The strain of the engines was a common sound to the thousands of people who lived directly below. They were the people who built the planes, the people of Liberator Village, a community of 6,000 housed in 1,500 government built apartments named for the WW II bombers. Liberator Village was never an official township, never incorporated, never a part of Ft Worth. It was simply a collection of working families bound by the common causes of making a living and supporting the war effort"
It goes on to tell that the plant opened in April 1942.The work force was abundant, but not housing so the government helped finance the building of the plant and the housing also. There were three sections-500 units each. First section was built with white asbestos siding and pier and beam (this was the section we lived in. The second was the same only on slab. They were called the "Whites". The third was built with red tiles and called the "bricks". There were four apartments in each "house"-the rent was $34 for one bedroom,$38 for two and $42 for three bedrooms. I remember that they were nice apartments, but my mother told of how once she was in our kitchen and called out to my dad in the other room and the man living in the apartment behind us answered her. According to the article, the pay at the plant was seventy cents an hour. It was three shifts at the plant, so work was continuous. Daddy told how noisy it was at all times-in later years, his hearing got really bad. The article also states that the plant turned out 3,034 B-24 bombers. I wish I knew what Daddy's assembly line job was (isn't it incredible what we don't bother to learn from our families!) I know that a few weeks after the war ended, most of the workers were laid off because the war effort no longer needed them. We had move there from another small Texas town, so we moved back home. In 1950, federal authorities began selling off the Village. The frame structures were demolished and the 500 tiles buildings were left. In 1956, a developer bought the land to build brick homes. Those homes remain, but recollections of the village are nearly exhausted.





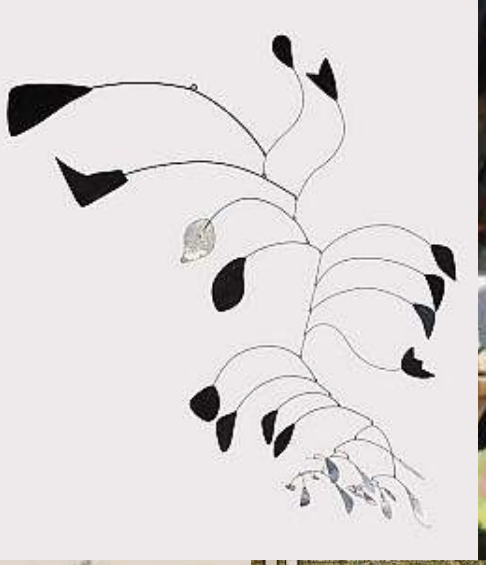




I don't have many pictures of the village.We moved from there right after the war ended in 1945. I was 5 years old - August 16, 1945- a few days after the war's ending. I don't have too many memories of living there. I do know there was one summer that several children living in the village came down with polio. One family had 4 or 5 girls and two of them contacted this awful diease-one was in an iron lung.
My mother had a picture of the girls and a writeup about them from the Ft Worth Star-Telegram, but this was lost in a house fire. I wish I could remember their last name. also, another family I remember-the wife's name was Charlsie and the husband Clyde. They had a little girl named Clydeen.
Our address was-
127 Rowland Drive
Liberator Village
Ft Worth
If you shhould ever learn of any reunion of the people who lived there or any news about the "village", I would so appreciated knowing about it!
Barbara
Please let me know more about the museum
1 picture
my dad and me,in our front yard at the village, background would be accross the street
2 my mother and me, same background
3 me and my aunt, who lived with us some when her husband (my dad's brother) was overseas in the service
4 me with my 4th birthday cake, accross the street in the oppisire direction from the first two pics


ARLEY-DAVIDSON
1941
1941
CUTS-MATS



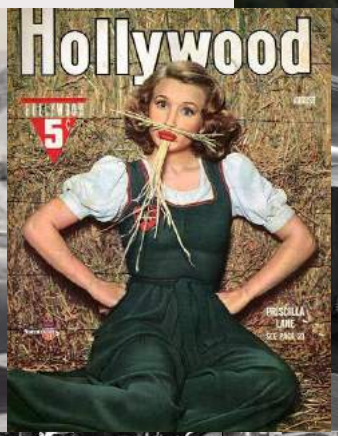











Hollywood
5¢



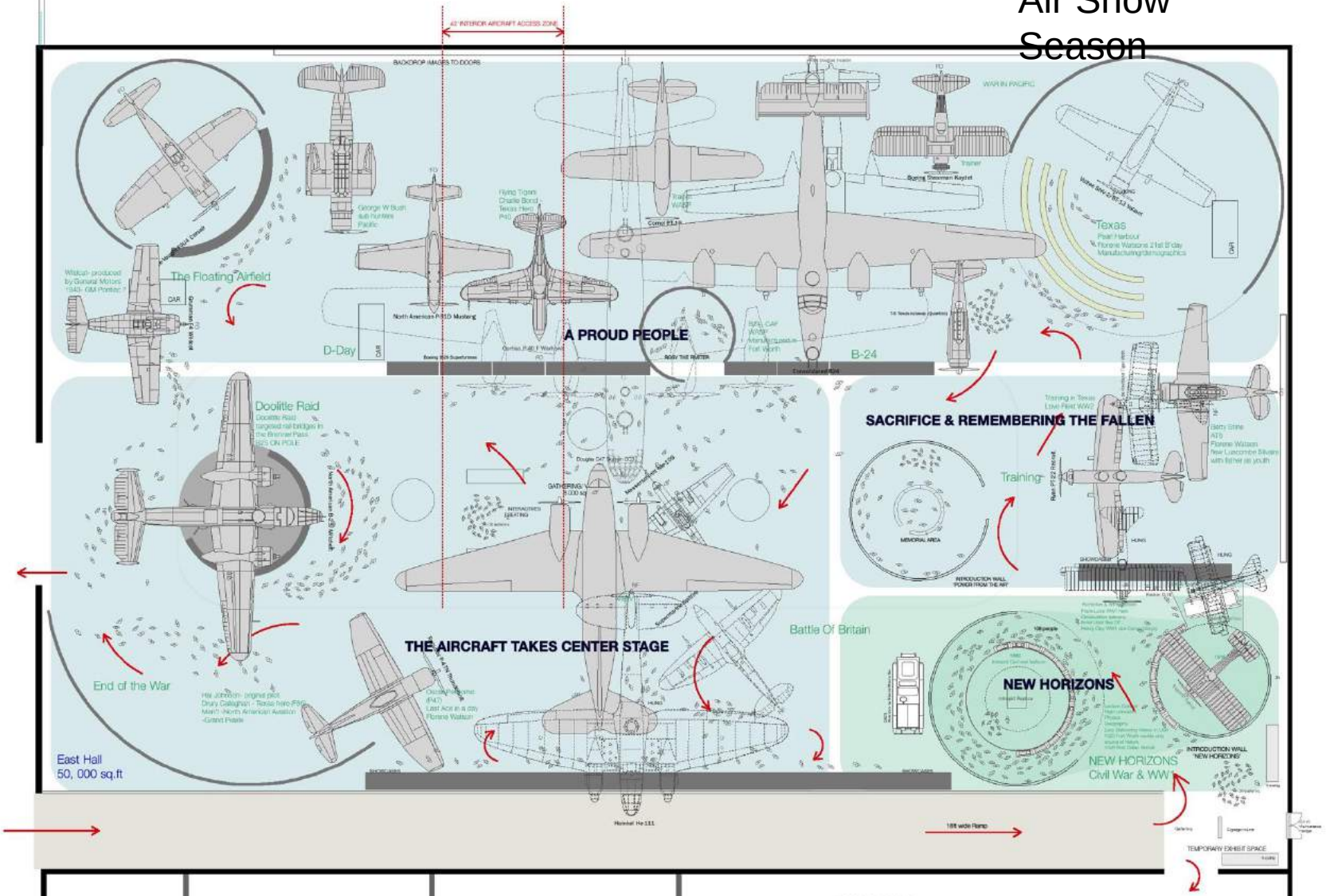



ST. HELENS
HOTEL
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DRUG
COFFEE SHOP

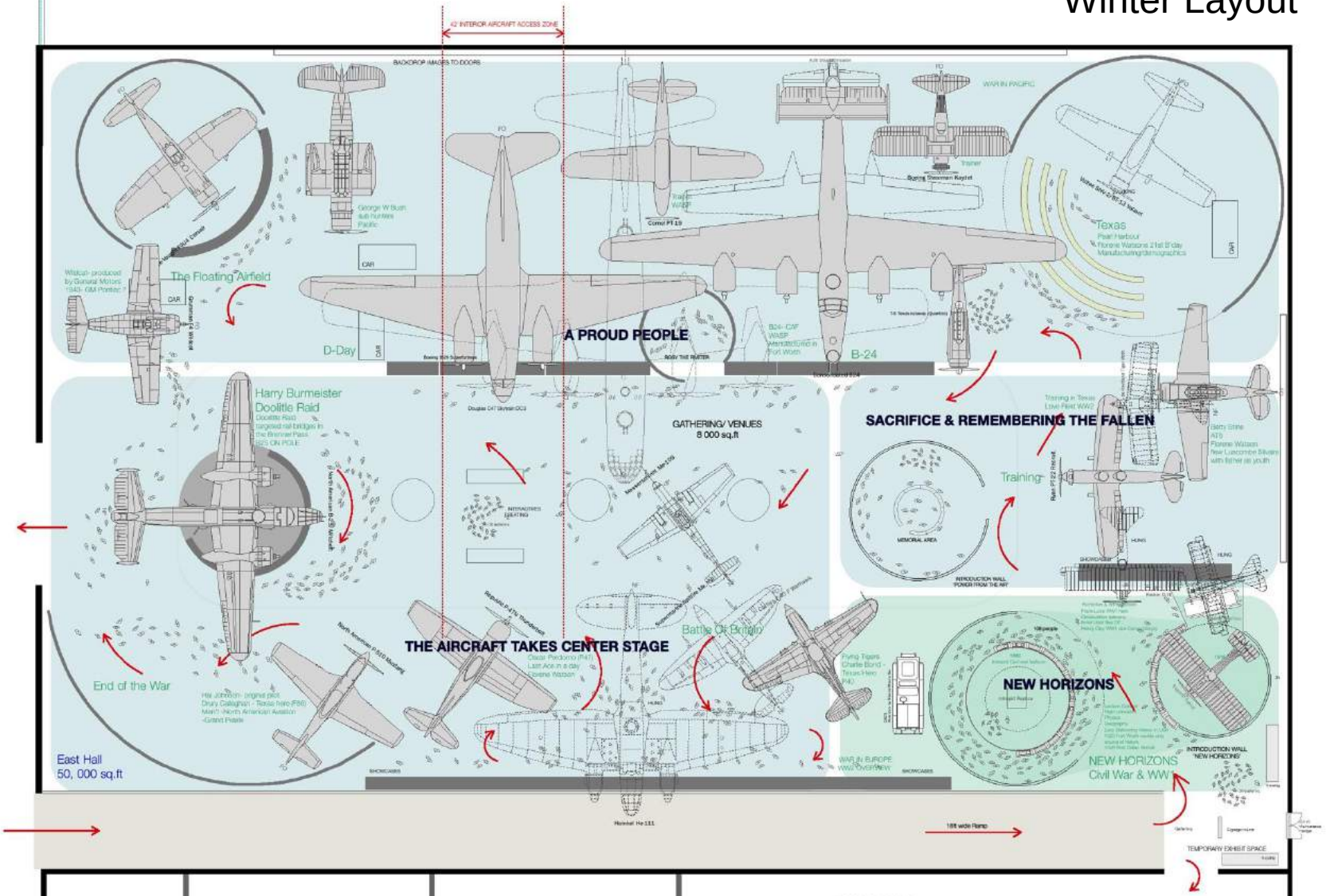




Air Show Season



Winter Layout



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2. AVIATION TODAY IS FUNDAMENTAL TO THAT WAY OF LIFE AND OUR FREEDOM TO ENJOY IT.

OUR SHARED PROSPERITY

CIVILIAN AVIATION COLLECTION

AVIATION TODAY IS FUNDAMENTAL TO OUR WAY OF LIFE

example industry storys:
- Lockheed Martin
- Bell Helicopter HQ
- American Airlines
- Vought Aviation

TEXAS INDUSTRY & COMMUNITY

PEOPLE & TEXAS HEROES

- Piper J-3 Cub
- Pitts Special
- Christen Eagle II
- Grumman HU 16 Albatross
- Boeing 727
- Lear Jet 23
- Lockheed Jetstar
- Cessna Citation 10
- Cessna 150
- Cessna 172
- Falcon 10
- Bonanza
- Luscombe Silvaire
- Globe Swift

KEY COLOURED FLAGS INDICATE THEMATIC ALTERNATIVES

- NEW OPPORTUNITYS OF AVIATION
- POWER FROM THE AIR
- OUR SHARED PROSPERITY
- ENSURING FREEDOM
- OUR SHRINKING WORLD
- Flys Often
- Collection Feature
- Pending Acquisition
- Texas origin / relevance

HISTORICAL PERSPECTIVE

Luscombe Silvaire

1945, manufactured at Garland Texas
Luscombe Silvaire - built 21 a day

social prosperity

Tie in with Florene Watson, who learned to fly on a Luscombe Silvaire, her father and brother were killed in it prior to the war.







CAVANAUGH FLIGHT MUSEUM, ADDISON, SEPTEMBER 2009

THE AVIATION INDUSTRY OF TEXAS

AERONAUTICS AND AEROSPACE INDUSTRY TODAY

Showcase the dominance of Aviation Industry within Texas today and since the 1940s

Bell Helicopter
Cessna
Gulf Stream
Boeing
Chance Vought
Hamilton Aero
Pratt and Whitney
Sikorsky
Stearman

'In 1967 sixty aircraft-manufacturing establishments operated in the state, employing 58,000 workers'





Lockheed Martin



Employment and community prosperity



FRD

FRD





SUSTAINABILITY

Why would you do all this when you have the best collections of working trams in the world?

Sustainable heritage requires the broadest possible audience not just the enthusiast



ACCESS POINTS

TYPICAL MUSEUM APPROACH



ARTIFACT

In 1952, a Pratt-Read soared to 44,255 ft setting a new world altitude record for two-place gliders. The record endured for an incredible 54 years, until Steve Fossett and Einar Enevoldson flew over the Argentinean Andes to 50,727 feet in the Perlan I glider.

INFORMATION
&
ARTIFACT


SINGLE ACCESS POINT

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INFORMATION
&
ARTEFACT

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FRAME: ALTITUDE

INFORMATION BECOMES RELEVANT AND MORE MEANINGFUL BY FRAMING IT

FRAME: ALTITUDE

CONTEXT
FAMILIARITY
ACCESS POINTS

Birds can fly as high in the sky as gliders and planes, 30,000ft above the ground.

The layers of the Earth's atmosphere vary greatly in levels of oxygen, heat and atmospheric pressure.

BIRDS/THE EARTH

Altitude sickness. The effects of altitude on humans are considerable. After the human body reaches an altitude of 2100m (7000ft) the saturation of oxyhaemoglobin begins to plummet.

HUMAN BIOLOGY

Gliders can climb to the stratosphere, around 30,000 ft, using lee waves, discovered by Wolf Hirth in the 1930s, but pilots need oxygen to avoid hypoxia. Altitude records have been an interesting and competitive quest in the sport of gliding.

HUMAN HISTORY

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HUMAN HISTORY

curiosity
engagement

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MULTIPLE ACCESS POINTS

Why are visitors so important?

The audience that are not currently coming to your museum are the future of your museum; they enable

SUSTAINABLE HERITAGE

SUSTAINABLE HERITAGE

1 Viable – the ability to attract enough visitors to keep the doors open

2 Relevant - the ability to make history meaningful and remain relevant into the future

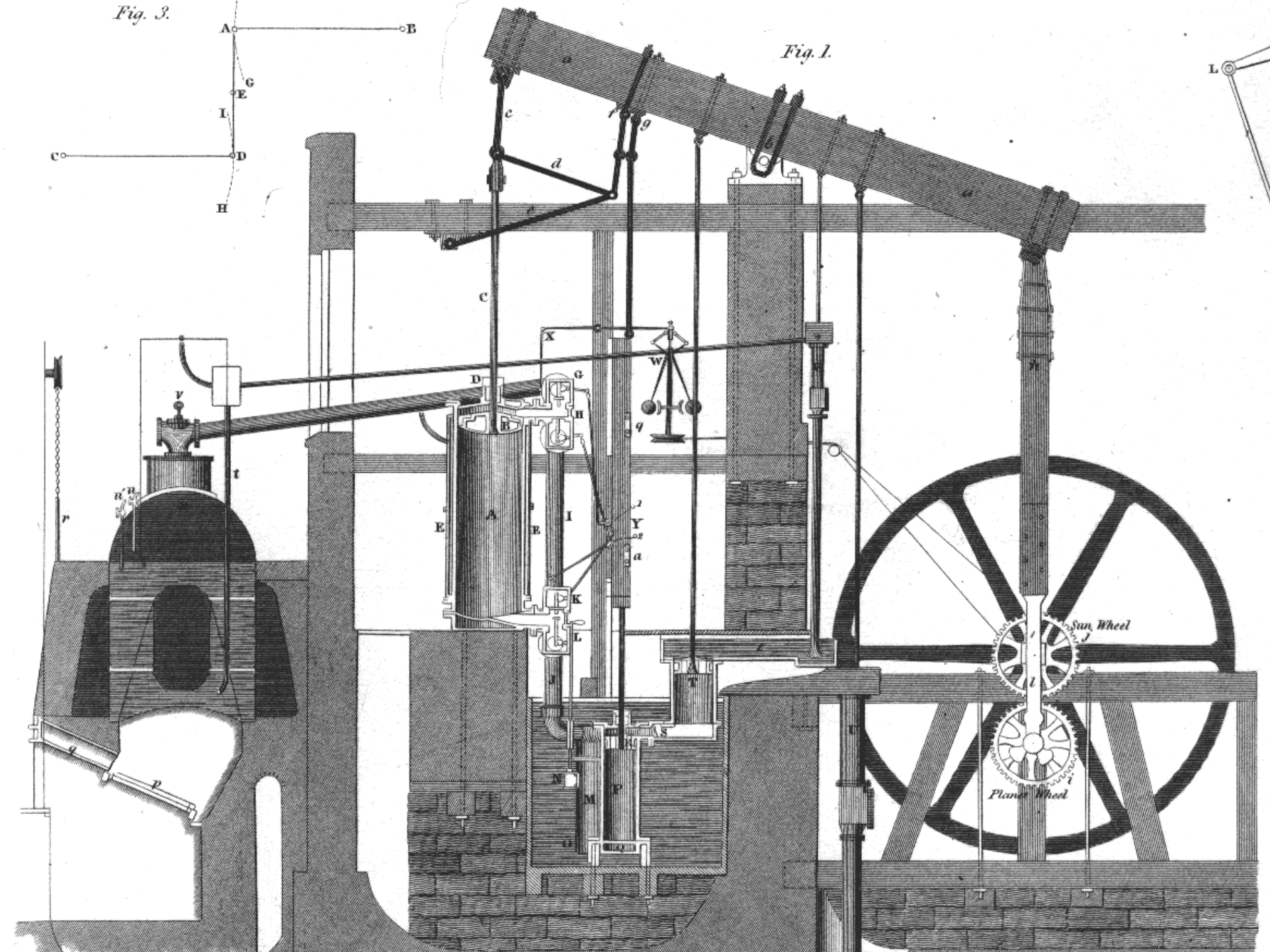
MEANINGFUL

Every visitor who enters your museum or gets on one of your trains is part of a continuum of human enterprise that has enabled our modern way of life to be what most of us enjoy today -

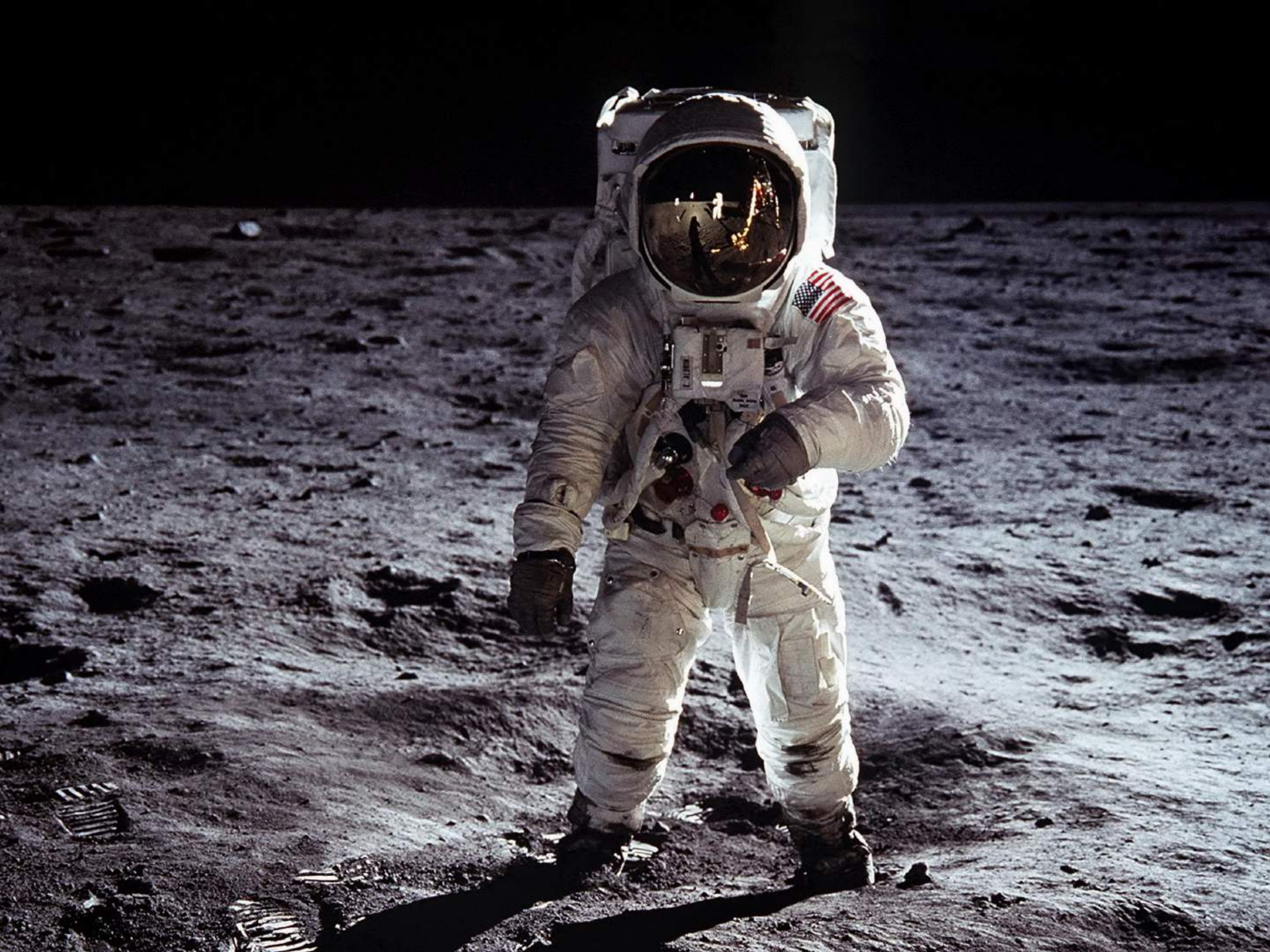
- an enterprise that will deliver solutions to tomorrows challenges

The visitor cannot influence the past but they can be informed about the past to deliver a better future and the history of transport is the perfect tool




Fig. 3.
A
B
G
E
L
C
D
H
Fig. 1.
Sun Wheel
Planet Wheel



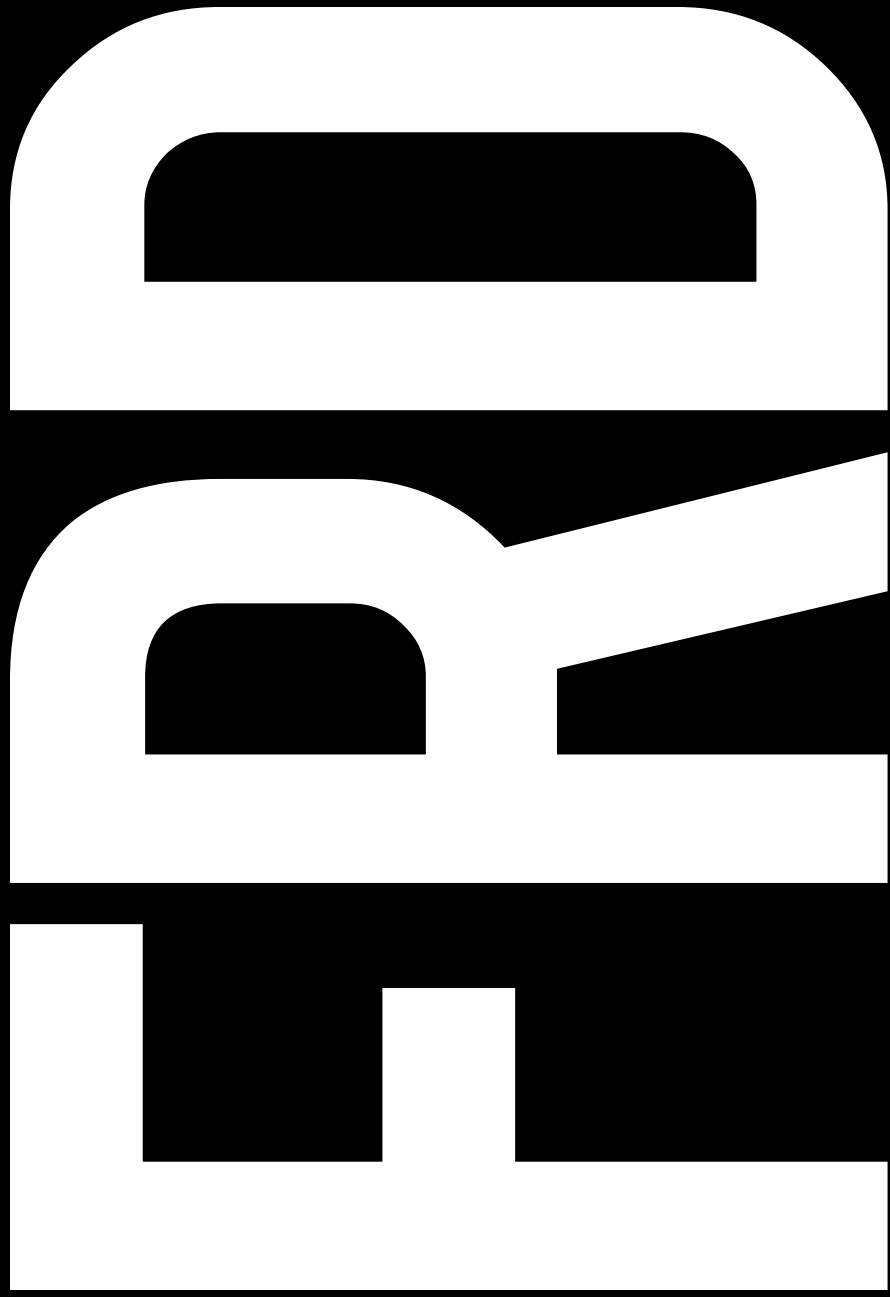


While many think our species is the problem but perhaps we are the solution – and museums can show how we have done it in the past – produce a machine that can deliver millions around cities every hour – amazing!

So what are we saying to the visitor?

ITS ABOUT YOU

Not just something/or someone famous from history, it is about you the visitor, this is important to you, so pay attention!



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