

# HWACHON DAM

Military utilization of a dam during wartime



# PURPOSE

- **Summarize military uses and impact of the Hwachon Dam during the Korean War**
  - **Impacts of the dam; used to control flooding of the Han River downstream; incapacitate combat bridging operations and traffic flow**
  - **2 Attacks attempted to destroy/neutralize the dam**
    - **Ground assaults 9-11 April 1951**
    - **Air attacks 30 April and 1 May 1951**

# OVERVIEW



- **Brief Review of Korean War**
- **Location of dam**
- **Ground Attack on dam**
- **Air Attacks on dam**
- **Conclusions**
- **References**

# Brief Overview of Korean War



# June 1950

- Korea occupied by Japanese in 1905 Russo-Japanese War
- Partitioned into north and south Korea after World War II
- North Korean communist Army attacks South Korea in June 1950 after US Secretary of State does not include it in speech outlining defensive perimeter around world communism



# Late July 1950

- **US Far East Forces rush to aid of South Koreans and are quickly driven back to Pusan Perimeter**
- **US seeks UN Security Council Resolution against North Korea**



# June-September 1950

- American and South Korean forces pushed into Pusan perimeter; loss of 24th ID and MGEN W.F. Dean
- United Nations resolution passed
- MacArthur leads amphibious landings against Inchon on September 15<sup>th</sup>, 1950





## October - Early November 1950

- North Korean ground forces are routed
- United Nations Forces breakout and pursue North Koreans to the Chinese border along the Yalu River





# November 1950 – January 1951

- American reconnaissance fails to detect nighttime crossing of the Yalu River by more than half a million Chinese troops during late October.
- On November 1, 1950 500,000 Chinese troops crossed the Yalu River and attacked UN forces
- Most beleaguered unit was 1<sup>st</sup> Marine Division



# January 1951 – March 1953

- UN forces bring airpower to bear on interdicting Chinese supply lines south of the Yalu River, but not north of it
- A stalemate develops near 38<sup>th</sup> parallel and Peace Talks begin in June 1951, lasting two years



# Map of central Korean Peninsula



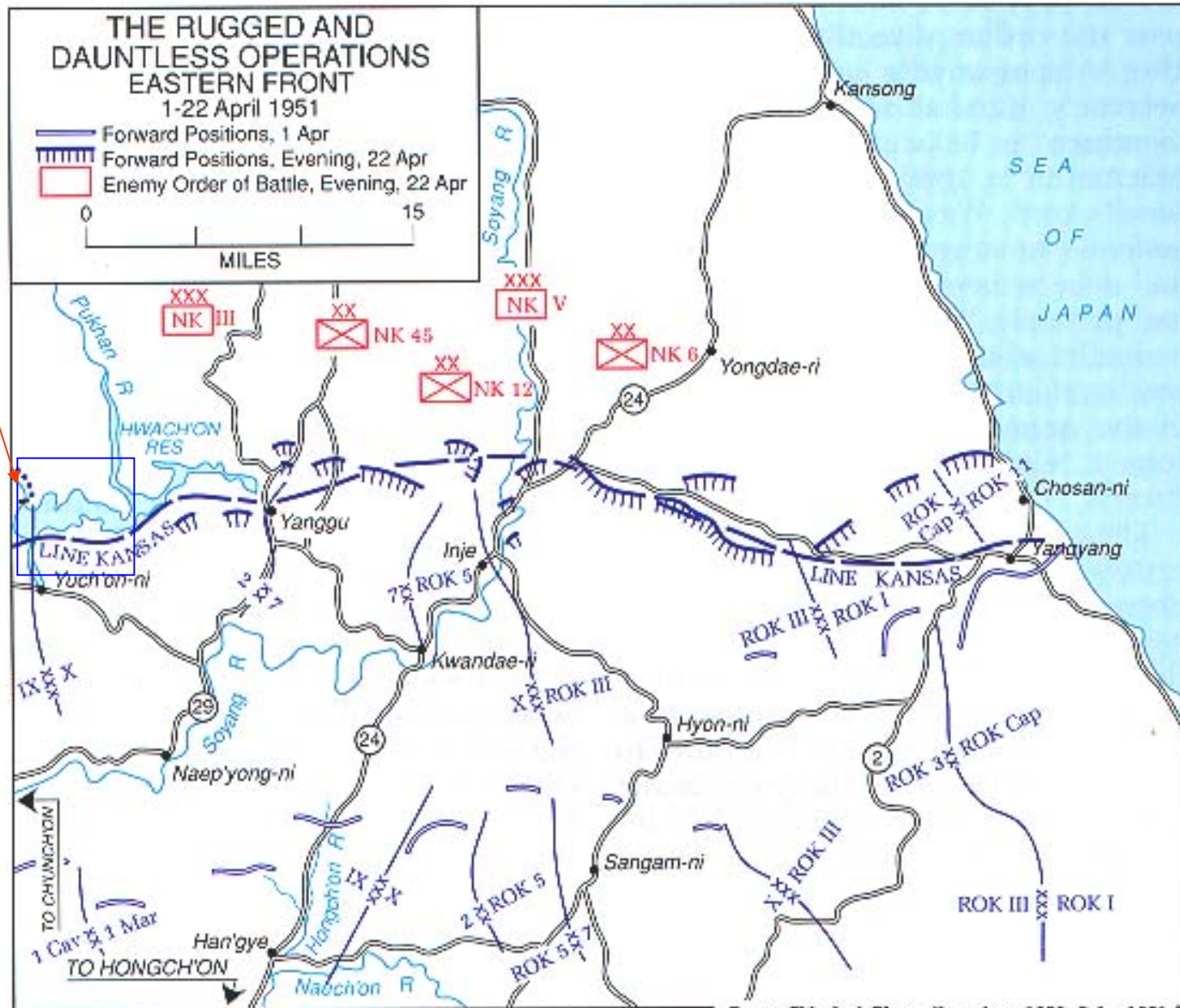


# Detail of Battle Area 1951-53



# Overall operation map

The Hwachon Dam battle occurred here.

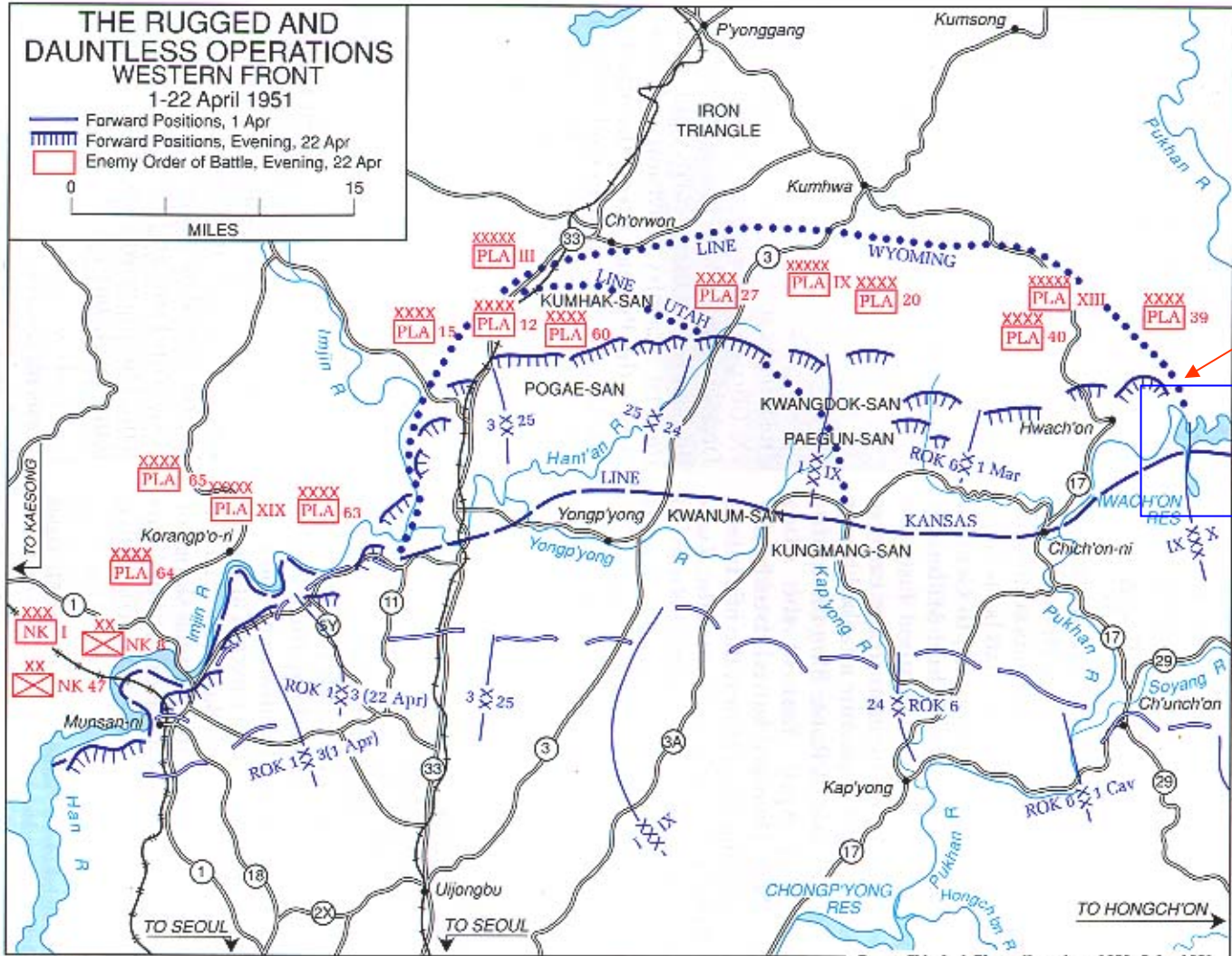


MAP 31

From: Ebb And Flow, November 1950-July 1951  
Center of Military History, 1990  
By Billy C. Mossman



# Central Korean Front April 1951



The battle occurred here.

From: Ebb And Flow, November 1950-July 1951  
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MAP 29

# Chinese control discharge from Hwachon Dam for military advantage

- **9 April 1951 Chinese Communist Forces (CCF) opened crest spillway gates on Hwachon Dam raising the Han River level by four feet. One UN bridge was destroyed and another broken apart to avoid damage.**
- **Note: The dam was considered by UN forces in planning of the offensive. US Corps of Engineers conducted a hydrologic study to determine the potential impacts of fluctuating discharge.**



# Commander's Intent?

## **General Hoge's intent, IX Corps Commander**

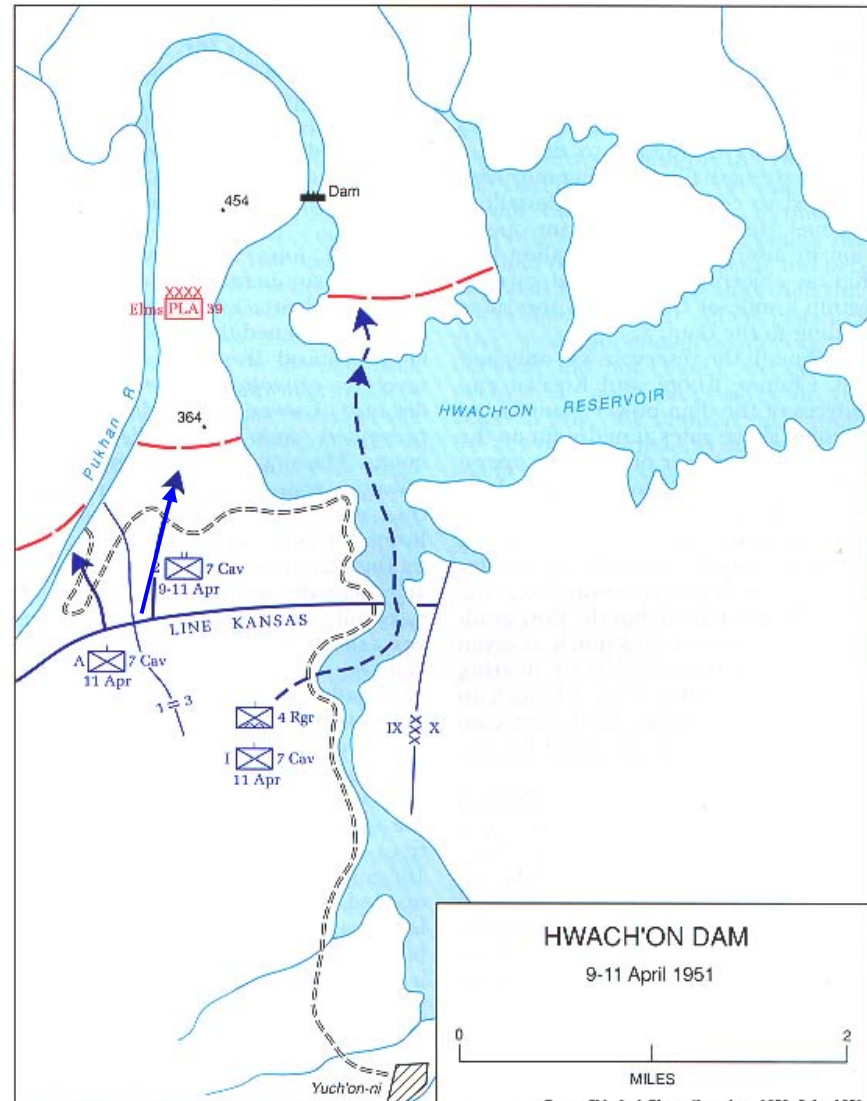
- **Attach the 4<sup>th</sup> Ranger Company to the 1<sup>st</sup> Cavalry Division. The Rangers were dispatched to conduct a raid on the dam and disable the gates.**

## **General Palmer's Orders, 1<sup>st</sup> Cavalry Division Commander**

- **Orders issued by General Palmer, commanding 1<sup>st</sup> Cavalry Division. 7<sup>th</sup> Cavalry Regiment augmented by 4<sup>th</sup> Ranger Company ordered to attack and hold the Hwachon Dam.**

# Ground Attack Days 1 and 2

- **9-10 April 2<sup>nd</sup> Bn 7<sup>th</sup> Cavalry Regiment attacks north toward dam.**
  - They advance up peninsula to within 1/2 mile of the dam
  - Stopped by “stubborn defense” of two CCF companies



MAP 30

From: Ebb And Flow, November 1950-July 1951  
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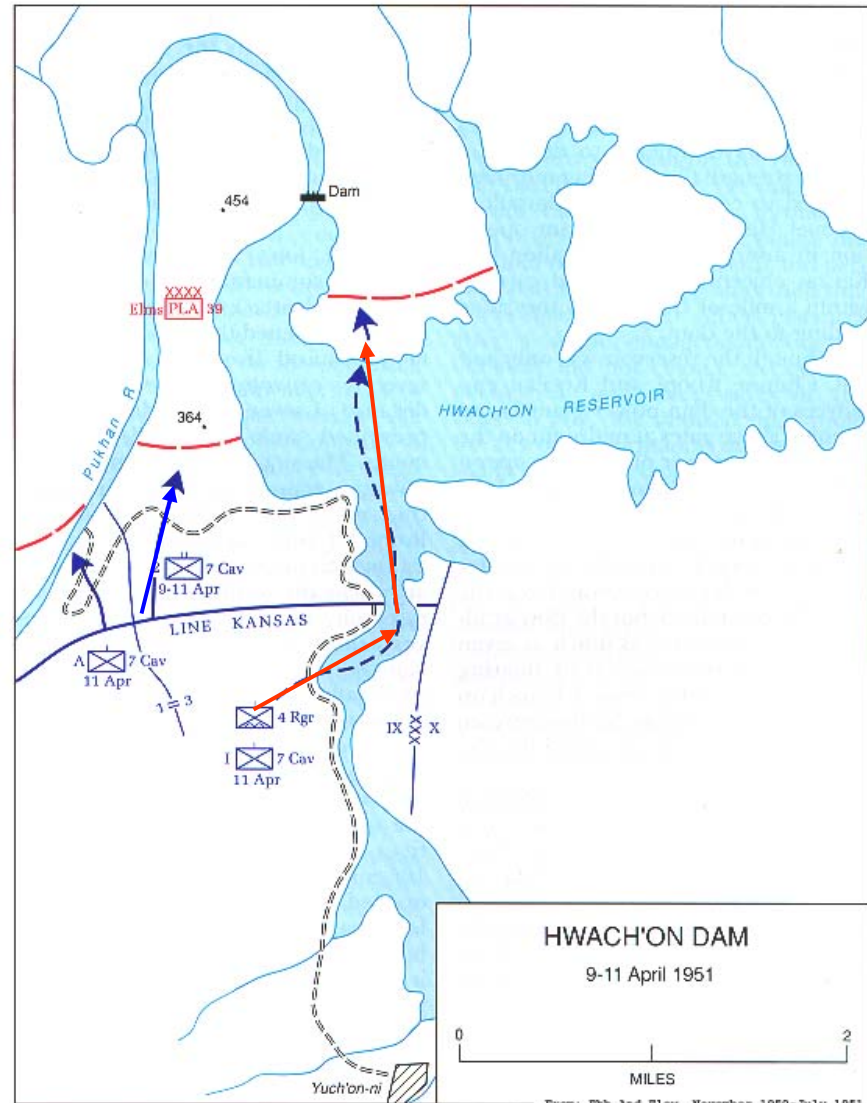
# Hilly Terrain in Korea



- **UN Forces transporting artillery up a hill/mountain in Korea.**
  - **High level of difficulty in just moving personnel and equipment behind without enemy fire.**

# Ground Attack Day 2

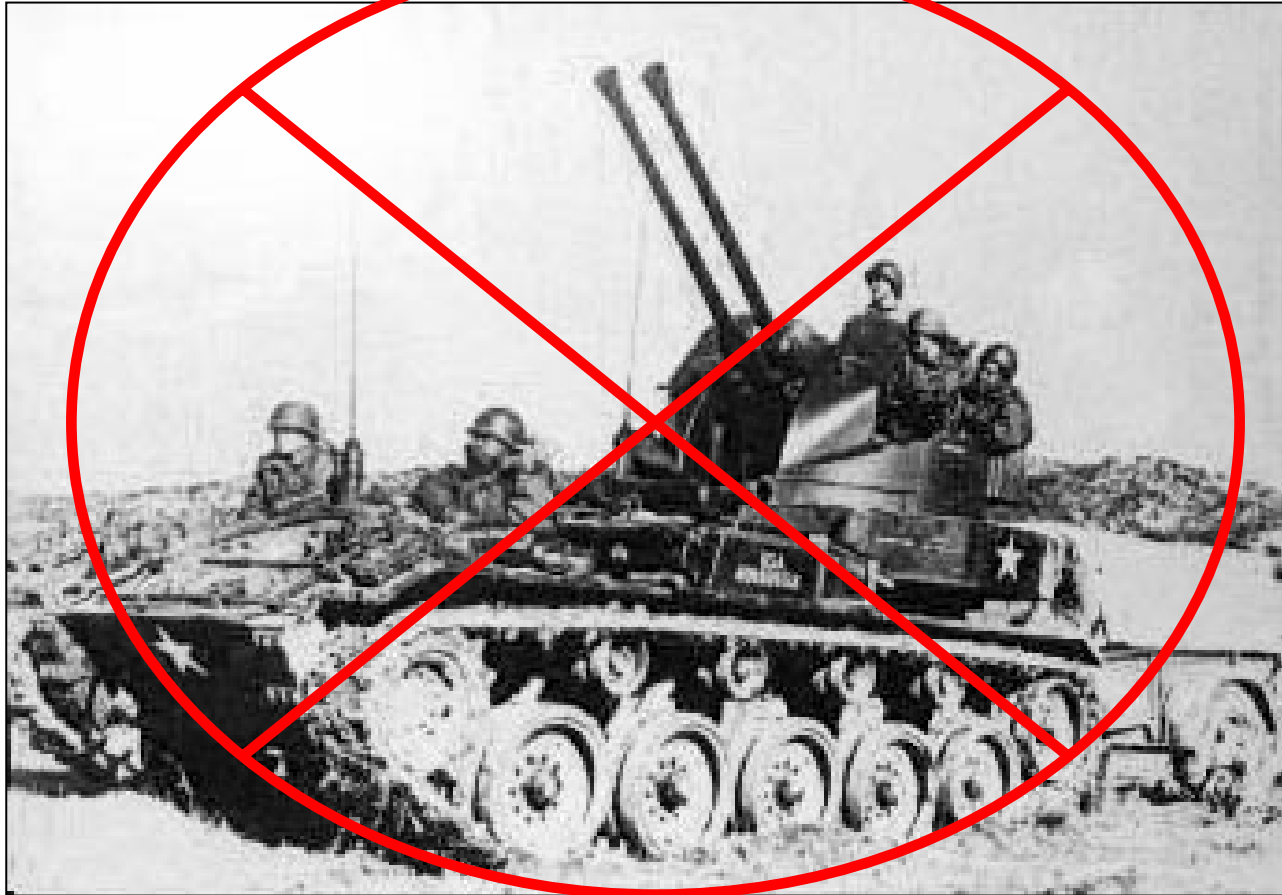
- 11 April 2<sup>nd</sup> Bn 7<sup>th</sup> Cavalry continues attack
- 4<sup>th</sup> Ranger Co and I Co conduct amphibious assault across reservoir
  - Crossing of forces slow
  - Called off near nightfall



MAP 30

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# No Tanks / Armored support



**M19 towing trailer through mud.**

# Average Roads: Small and unimproved





# Logistical Limitations: Poor Roads

- **Limited artillery support for attack (one battery of 155mm howitzers). Poor roads prevented the movement of additional artillery (up to 3 battalions of 105mm howitzers). Only a single 155mm howitzer could actually range the dam.**
- **No armored support**
- **Difficulty in delivering boats for assault**
  - 9 boats with only 4 motors



# Another Factor: Morale



- **The 1<sup>ST</sup> Cavalry Division was scheduled to move off the front line on 10 April.**
- **Nobody wants to sacrifice their lives with only a few days remaining in their combat tour**

# Plan #2: Call for Air Strikes

- **Actually a series of attacks by the Navy**
  - **First attempt on 30 April 1951 used conventional 2,000 pound bombs and 11.75 inch dia. rockets**
  - **2<sup>nd</sup> Attempt used Mark XIII aerial torpedoes**
    - **First use of torpedoes since 1945**
    - **Strike force consisted of 3 AD-1 Skyraiders from VC-35 (carrying torpedoes), 4 AD-1s from VA-195 (carrying torpedoes) and 12 F4U Corsair fighters from VF-192 for anti-aircraft fire suppression. All from USS Princeton.**
  - **Flood Gates were 20 feet tall and 40 feet wide and constructed of steel. Reinforced structural concrete provided overhead protection to the gates**

# Skyraider-Flying Dumptruck



- **AD-1 Skyraiders armed with Mk 13 torpedoes (second attack)**
- **Carried same bomb load as WW2 B-17 bomber**
- **F4U Corsair fighters conducted air defense suppression (coordinated attack)**

# Dam Gates Under Attack

Photo # 80-G-428678 Torpedo attack on Hwachon Dam, Korea, May 1951





# Mk 13 Aerial Torpedoes



- Developed by Cal Tech and Navy Undersea Weapons Lab engineers after Battle of Midway in 1942
- Could be dropped from 20,000 feet altitude
- Last time aerial torpedoes were used in combat

The white protective “head” of the torpedo would break away after it hit the water

# Post Attack View of Dam



Note ice covering downstream face

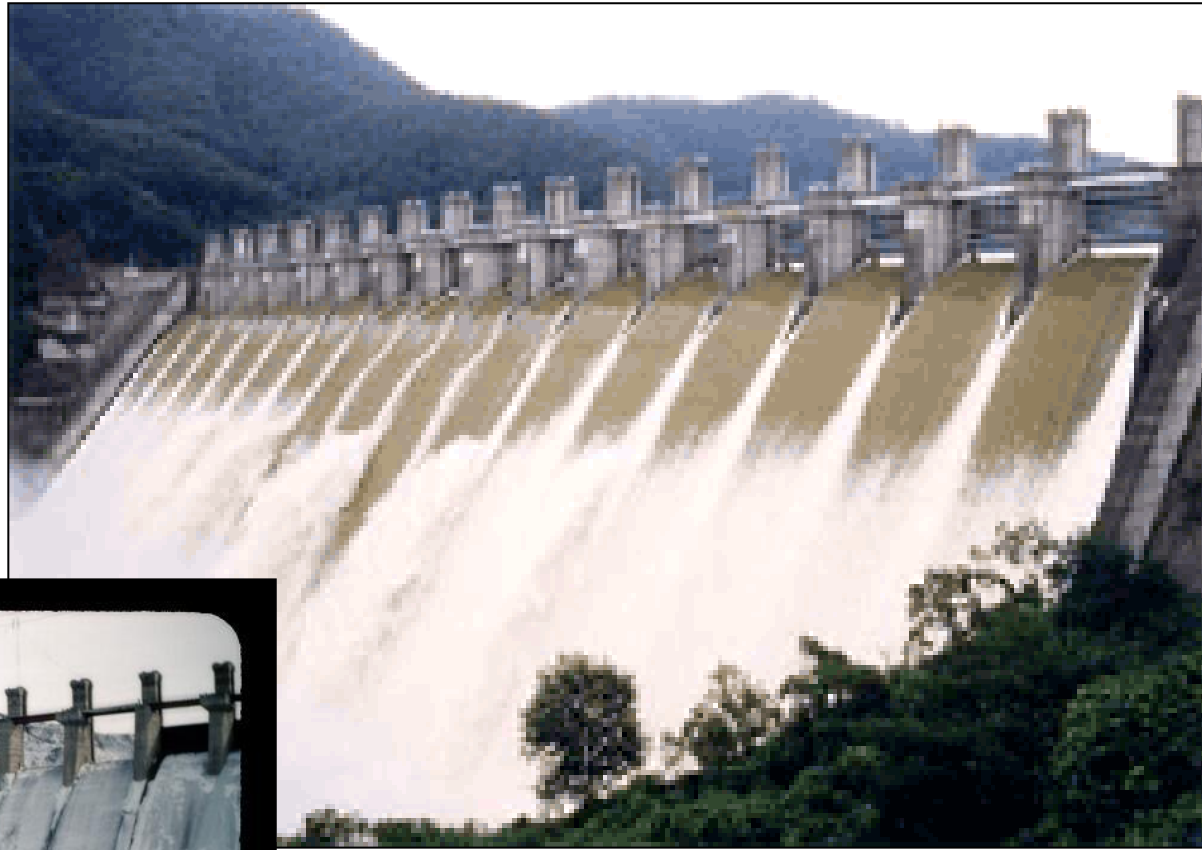
# Lore about the Attacks



- Ranger history of the amphibious assault included in FM 7-85 Ranger Operations
- Navy squadron VA-195 re-named the “Dam Busters”
- Attack negated the military value of the dam but did not destroy it. Only a few flood gates were destroyed.



# Hwachon Dam: Then and Now





- Only 6 years after its construction it became the focal point of a multinational war
- Commander's believed it could be taken by ground forces, but fire support and morale lacking
- Soldiers expectation of relief was likely a large factor
- Navy “thinking outside the box” in using torpedoes
- Built by the Japanese in 1944 for electrical power, the dam remains in use

# Hwachon Dam today

- **Hwachon Dam is a mass concrete gravity dam. It remains the second largest hydroelectric producing facility in South Korea (108 MW capacity)**
- **Its reservoir is part of a large recreational area and flood control system for the upper Han River, the principal watercourse that passes through Seoul, South Korea's modern capital city**

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