



DEFENCE TECHNOLOGY

M R C MURALI KRISHNA SIR



DEFENCE TECHNOLOGY

- DRDO, NEW DELHI
- MINISTRY OF DEFENCE
- DEFENCE EQUIPMENT-
- ARTILLERY,
VEHICLES, SUBMARINES,
- AIRCRAFTS, MISSILES,
- RADAR TECHNOLOGY



EXAMINATION POINT OF VIEW

- SUBMARINES, SINDHUGOSH,
- RUMIA - DIESEL ENGINE
- INS ARIHANT-VIZAG, NUCLEAR
INDIGENOUS



- AIRCRAFT
- LCA TEJAS, SINGLE ENGINE,
INDIGENOUS
- HAL LIGHT FIGHTER AIRCRAFT
FOR AIRFORCE AND NAVY



CHINOOK -HELICOPTER,HEAVIEST
LIFTING AIRCRAFT

USED FOR DISASTER
MANAGEMENT



MISSILE TECHNOLOGY

- LIKE ROCKETS
- WARHEAD/GUIDANCE
SYSTEM/FUEL/WINGS
- MISSILE CARRIER WARHEAD



TYPES OF MISSILES

- CAN BE CONTROLLED DURING FLIGHT
- EXAMPLE-BRAHMOS SERIES ,
PARALLEL TO EARTHCRUISE
MISSILES-ENDO ATMOSPHERIC
- TRAVELS SMOOTHLY IN AIR,
WATER,ETC



BALLISTIC MISSILES

- PARABOLA
- PROJECTILE MOTION
- CANNOT BE CONTROLLED
DURING FLIGHT
- PRUTHVI SERIES, AGNI SERIES,
DHANUSH



CLASSIFICATION BASED ON LAUNCH MODE

- SURFACE TO SURFACE -AGNI
- SURFACE TO AIR-AKASH
- SURFACE TO SEA-BRAHMOS
- AIR TO AIR- ASTHRA



FEW MORE TYPES

- AIR TO SURFACE-DRDO ANTI RADIATION MISSILE
- SEA TO SEA/SURFACE-
- VARUNASTRA /TORPEDO



ANTI TANK MISSILE -NAG

MAN PORTABLE MISSILE



MISSILE RANGES

- SHORT- UNDER 1000 KM-AGNI 1
- MEDIUM-UPTO 5000 KM-
AGNI 2-4
- ICBM-ABOVE 5000 KM-AGNI 5



TACTICAL

- -LESS RANGE,
- CONICAL,
- CONVENTIONAL WARHEAD-
- PRAHAR



PROPULSION

- RAMJET
- OUTSIDE AIR HEATED UP
- SCRAMJET
- TURBINE
- SUPERSONIC



WARHEADS

- CONVENTIONAL GUN POWDER
- NUCLEAR STRATEGIC
RADIOACTIVE USE



GUIDANCE SYSTEMS

- WIRE GUIDANCE
- SIGNAL GUIDANCE FROM
- COMMAND CONTROL SYSTEM
- TERRAIN COMPARISON-PRE
RECORDED MAPS



MORE DETAILS

- TERRESTRIAL GUIDANCE
-ANGLES
- INERTIAL GUIDANCE-SENSORS
- BEAM RIDER GUIDANCE-BEAM
LASER



BRAHMOS

- INDIA AND USSR
- MECH 2.8 300KM
- LAND/AIR/SEA
- SOLID & LIQUID FUEL
- AFTER JOINING MTCR,
BRAHMOS RANGE CAN BE
INCREASED TO 500 KM



AKASH

- LAND TO AIR, MULTI-TARGET
- COMMAND GUIDANCE
- SUPERSONIC- RAMJET
PROPULSION



MORE ABOUT AKASH

- RANGE -25 KM, ALTITUDE -18KM
- MACH 2.8 -3.5
- NEUTRALIZE ADVANCED AERIAL TARGETS



ASTRA

- AIR TO AIR ,INDIGENOUS -DRDO
- LAUNCHED ON SUKHOI-30
- WORKS EVEN IN JAMMING ENVIRONMENTS



AVANGARD

- . USSR
- 20 MACH HYPERSONIC
- MULTIPLE TARGET RECENTLY
PAYLOAD
- ICBM



K-4 MISSILE

- UNDERWATER BALLISTIC MISSILE
- 3500 KM
- SUBMARINE MISSILE



STRUMATAKA-

- ANTI-TANK MISSILE -USSR
- SURFACE TO SURFACE -200 KM
-



PRANASH

- TACTICAL BALLISTIC MISSILE
- UNDER DEVELOPMENT
- SURFACE TO SURFACE
- 200 KM



PINAKA-

- MULTI-BARREL ROCKET
LAUNCHER SYSTEM
- 40KM/75KM