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Addressing Complexity
Through Simplicity
Military Bandwidth Demands at the turn of the Century

- Desert Storm: 90 Mbps
- Kosovo 250
- Enduring Freedom: 736 Mbps
- Iraqi Freedom: 3200 Mbps
- Transformational Communications: 25000 Mbps

CHIPS – The Department Of the Navy
Jan-Mar 2005
Size, Complexity, and Criticality Increasing
SMC Estimated Software Trend

Legacy systems: Sub 100KSLOC
Future systems: Upwards of 1MSLOC

Launch Year

0 100 200 300 400 500 600 700 800 900 1000
1000 Source Lines Of Code (KSLOC)

Milstar I P/L+S/C
GPS IIR P/L+S/C
Milstar II P/L+S/C
SBIRS High P/L+S/C
SBIRS High HEO P/L+S/C
STSS S/C
GEOP L+S/C
AEHF P/L+S/C
NPOESS 1 P/L+S/C
SR P/L+S/C
GPS III P/L+S/C
GPS IIF P/L+S/C

Diverging Code Complexity

Aerospace
Cross-Program Research Office
May 12, 2006
Complexity Driving Growth of Ground Software

![Graph showing the growth of 1000 Source Lines of Code (KSLLOC) versus Launch Year. The graph includes points for DSCS, Milstar/WGS, AEHF, and TSAT, with a trend line indicating an upward trend from 1995 to 2020.](image)