

The image features a stylized illustration of a pilot in a green flight suit sitting in a black chair at a control station. The control station has a large, multi-panel display screen with yellow borders. A red beam of light extends from the screen towards a blue and red fighter jet flying in the sky. Above the jet, a white flag with three horizontal stripes is waving. The background is a dark blue gradient. The word "SIMIGON" is written in large, white, sans-serif capital letters in the upper center of the image.

**SIMIGON**

**JSF and SIMbox training  
concept**

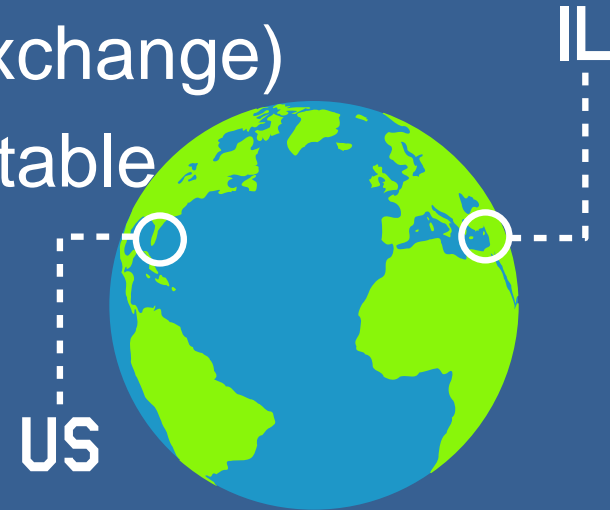
# Presentation agenda

- SimiGon short introduction
- SimiGon and the JSF programs - milestones
- History and challenges in pilot trainings
- Technology and suggested solution overview
- JSF effects on SimiGon
- UKMFTS Case study



# About SimiGon

- Leading provider of training and simulation solutions
- Founded 1998
- Offices in the US and Israel
- Public company (SIM on London Exchange)
- Continuously growing, Financially stable



# JSF & SimiGon

- 1998 – Peace Marble 5 offset discussions
- 1998 – MOU with Lockheed Martin
- 1999 – SIMbox concept for JSF presented to LM
- 2000 – SIMbox (NxTrain) selected by LM for LMS and SBT
- 2001 – SIMbox Lab was purchased by LM
- 2006 – Official JSF award selecting SIMbox
- 2009 – First system delivery (over 500



# History (Last 30 years...) – Main Trends

- Moving from “Simple” analog platforms to advanced and computerized platforms - require more knowledge
- Amount of cockpit information dramatically increased (More multi-tasking)
- Minor changes in training aids and techniques although simulation’s capabilities heavily increased
- Budget cuts - never ending story...
- Poor history recodes
- Z generation students – “Leave me alone...”



# Traditional Problems in Pilot Training

- It is expensive...
- “Limited” and “Central” training aids
- Lack of instructors...  
and too many trainees...
- Pilot screening (costly mistakes)





# Solutions?

- Reduce flight hours or use them better... (Shift expensive flight hours to simulated devices of all kinds)
- Maximize each sortie with truly “ready” trainee to save flight hours or enhance training syllabus:
  - Provide On site 24/7 knowledge and simulation training availability with instructors (if possible...)
  - Test mission readiness (knowledge and skill)

# Solutions?

- Provide better training environment and knowledge to the whole organization
  - Accelerate learning by using Monitored, Advanced, Dynamic & Personalized (Self-Paced) training which enables skilled and less skilled personnel know more
  - Enables Managers/Commanders to know who knows what at that time





# And also - Overcome Security issues challenges...

- Create fire wall between the program and you
  - Provide Tools for the customer/end user to work by himself
  - Show your code...
  - Learn mentality and regulations (No games...)

# So what is needed?

- Distributed, monitored and self paced training capabilities on low cost trainers that includes hi fidelity simulation and no real instructors “in the loop”
- Information and Knowledge management for trainee and organization
- Tools to crate new content

# SIMbox Training & Simulation Platform Overview

CONTENT  
DEVELOPMENT  
TOOLKIT



- Developers can create, reuse and control simulation-based applications and VI guided lessons

SERVER  
MANAGEMENT  
ENVIRONMENT



- Learning Management System
- Training Management System
- Content Management System

RUNTIME DELIVERY  
ENVIRONMENT



- Hi-fidelity 3D distributed simulations for military and civilian applications

Cost-effective technology and solutions

# JSF program effects on SimiGon business

- Open office in Orlando
- Exposer to other parts in LM (UKMFTS, C130)
- Great reference around the globe...
- Advance trainer jet training concept (Hawk, M346, Tx)
- Company grow up

# Case Study - UK Military Flying Training System

- Takes UK armed forces aircrew from initial training through, elementary, basic and advanced flying training phases, preparing them for their arrival at their designated operational aircraft units
- Operated by Ascent Flight Training, a consortium of Lockheed Martin and Babcock International
- 25-year Private Finance Initiative (PFI) contract for the UK's (MOD)
- Movie...

# Case Study - UK Military Flying Training System

The attached article was published in MS&T, Volume 31 (Issue 2.2014). As part of the upcoming T-X program they described the Hawk T2 solution and focused on UKMFTS. The article speak highly about the lap top and FTD solution (both based on SimiGon's technology (SIMbox) and provided to UKMTS program by Lockheed Martin) as part of the training.

## **Live-Synthetic**

The live-synthetic mix on the AJT course is roughly 50/50, not as an arbitrary target, but as a result of careful study. The mix varies from phase to phase – the Instrument Flying phase is roughly 20/80 and Air Combat 90/10. All syllabus sorties are rehearsed in the FTD, and this is thought to contribute significantly towards an airborne sortie failure rate reduced from a historic 7-8% in the T1 to less than 0.5% in the T2. Mission planning for flying





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