

CAANZ

Safety Investigation Unit

Developments in field
equipment and computer
simulation

Presenters: Dan Foley
Colin Grounsell

Introduction

Peter Kirker - Manager SIU

Recent advances in SIU Investigator's equipment

Helicopter Training

360° Photography

Computer Simulation

Investigator's Gear

PPE

Camera

Laser Range Finder

PLB

Tents

Stove

Food Packs

Pelican Cases

PPE

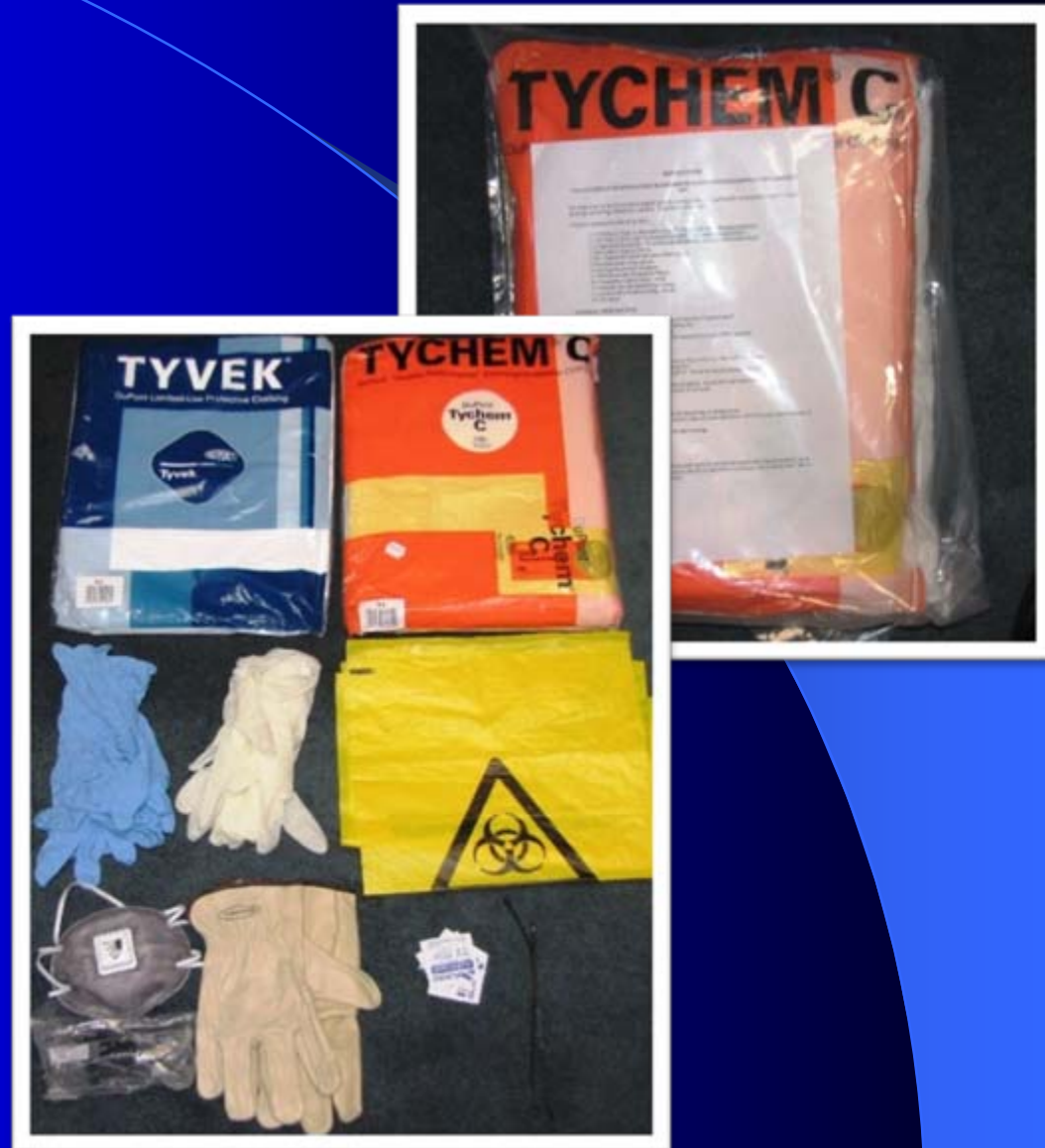
Kits put together locally

AMTECH Wanganui

Order to onsite, within half
day

Cost \$69 NZD

USA equivalent \$189 NZD



Camera

Canon SX1 Digital

Photo and HD Video

10.0 Mega Pixels

20 x Wide Zoom

16 GB Card 1000-10,000 Photos

\$700 NZD



Laser Range Finder

NcStar NLB 800

\$170 USD (Ebay)

Range 12 to 800 metres

Advantages:

Fast

Accurate +/- 1 metre

Small and lightweight

Disadvantages:

Measures straight lines only

Needs a 'target' to aim at



Laser Range Finder



EPIRB – Kannad 406 PLB

Personal Locator Beacon
GPS
Operating Life 24 hours
Must be registered



Pelican Cases

Two types in use - Pelican
1550 and 1630

Pelican 1550

Hand Luggage placed in
aircraft hold



Pelican Cases

Pelican 1630

Caution – may be too heavy for couriers, 25 kg limit



Tents

Macpac Minaret

Two person

Four season tent

2.4 kg

Multi pitch

All round compromise



Stove

Primus Omni Fuel Stove

Fuel Types:

Gas cartridge

White spirits

Petrol

Kerosene

Diesel



Considerations for flight

Food Packs

24 hour ration packs

Military packs

Note: The label wording !

Back Country Cuisine

Freeze Dried



Helicopter Training

AS 350 Squirrel and UH-1H Iroquois
Every two years

Individual harnesses-Miller AMAX 1

Long line Winch Hover



Panoramic Photography

and

Computer stimulation

Panoramic Photography

Requires Tripod with 'Pano head'

3 sets of overlapping photos stitched together

12 photos for each 360°

Portrait orientation

Marops Ltd www.marops.net





Technology based company specialising in interactive 2D and 3D graphics, training and technical surveillance projects in the defence and commercial sectors.

Contact: contacts@marops.net

Panoramic Photography

Advantages:

- Provides 360 degree views of accident scene/surroundings
- Zoom capability
- Close-up photos can be inserted
- Can incorporate with map
- Provides great scene reference material back at the office

Panoramic Photography

Disadvantages:

- Takes time to do properly
- Scene must be static – no movement of people/vehicles etc
- Lighting conditions can be challenging
- Could be difficult to do in harsh terrain

Panoramic Photography

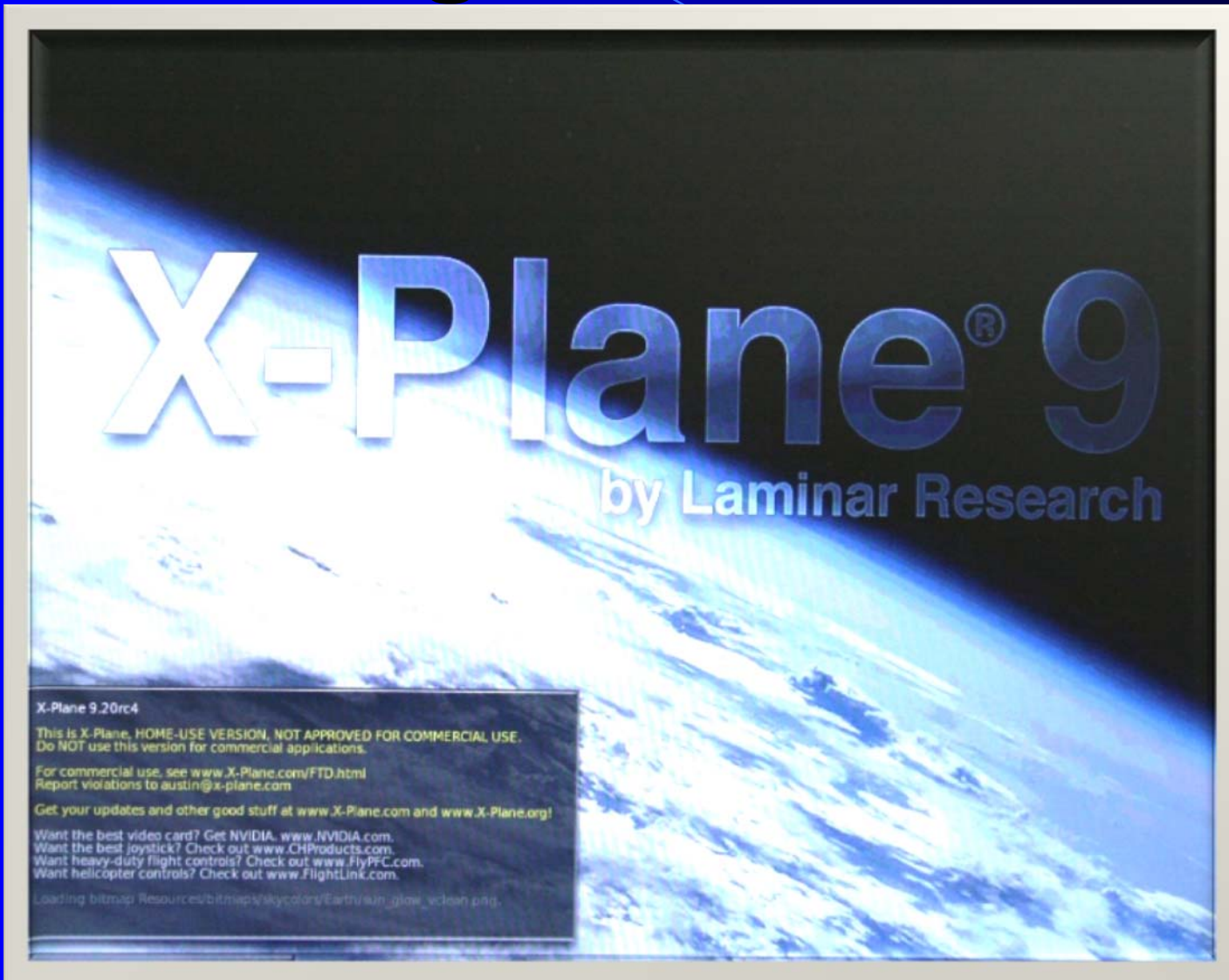


Panoramic Photography

Example – Cresco Accident

Parts V4.exe

X-Plane Flight Simulation



X-Plane Flight Simulator

X-Plane Software:

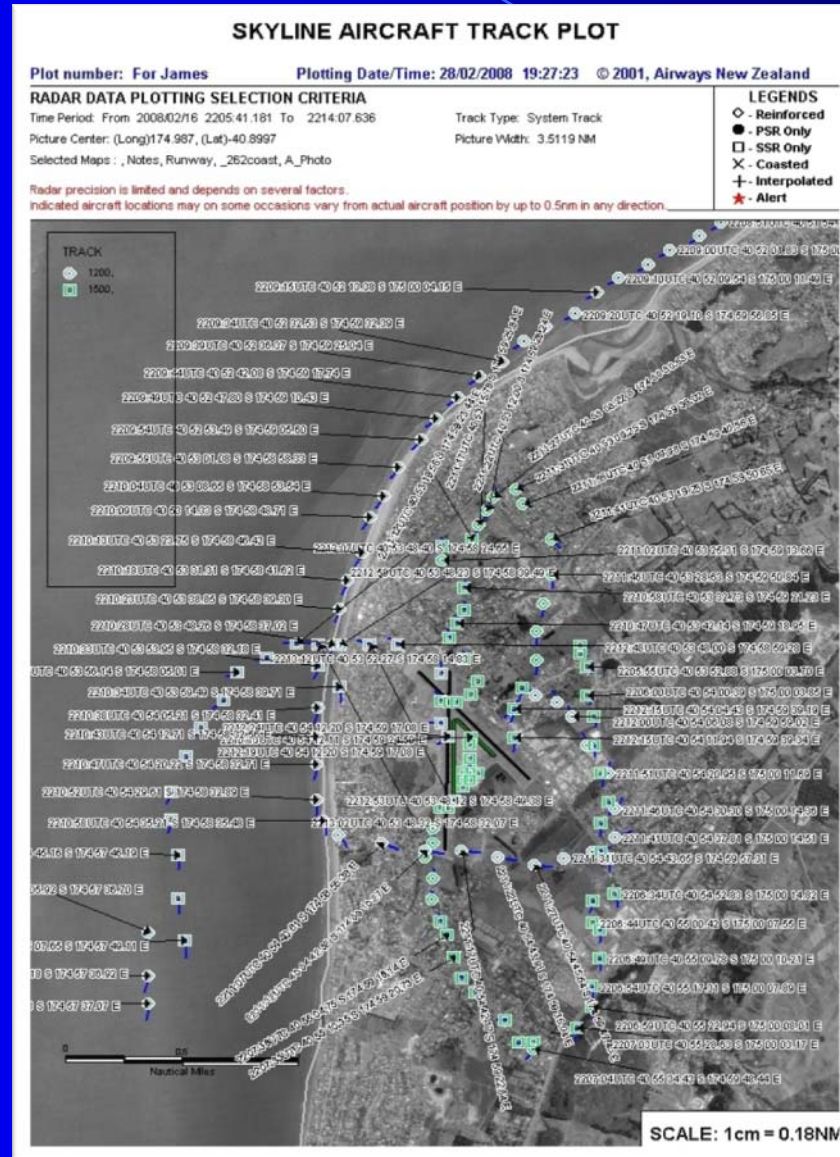
- Lanmar Research www.x-plane.com
- Encourage third party plug-ins
- Advanced versions approved by FAA
- Cost \$39 USD
- Plug-in Developed by Marops Ltd from Airways Skyline data

X-Plane Flight Simulator

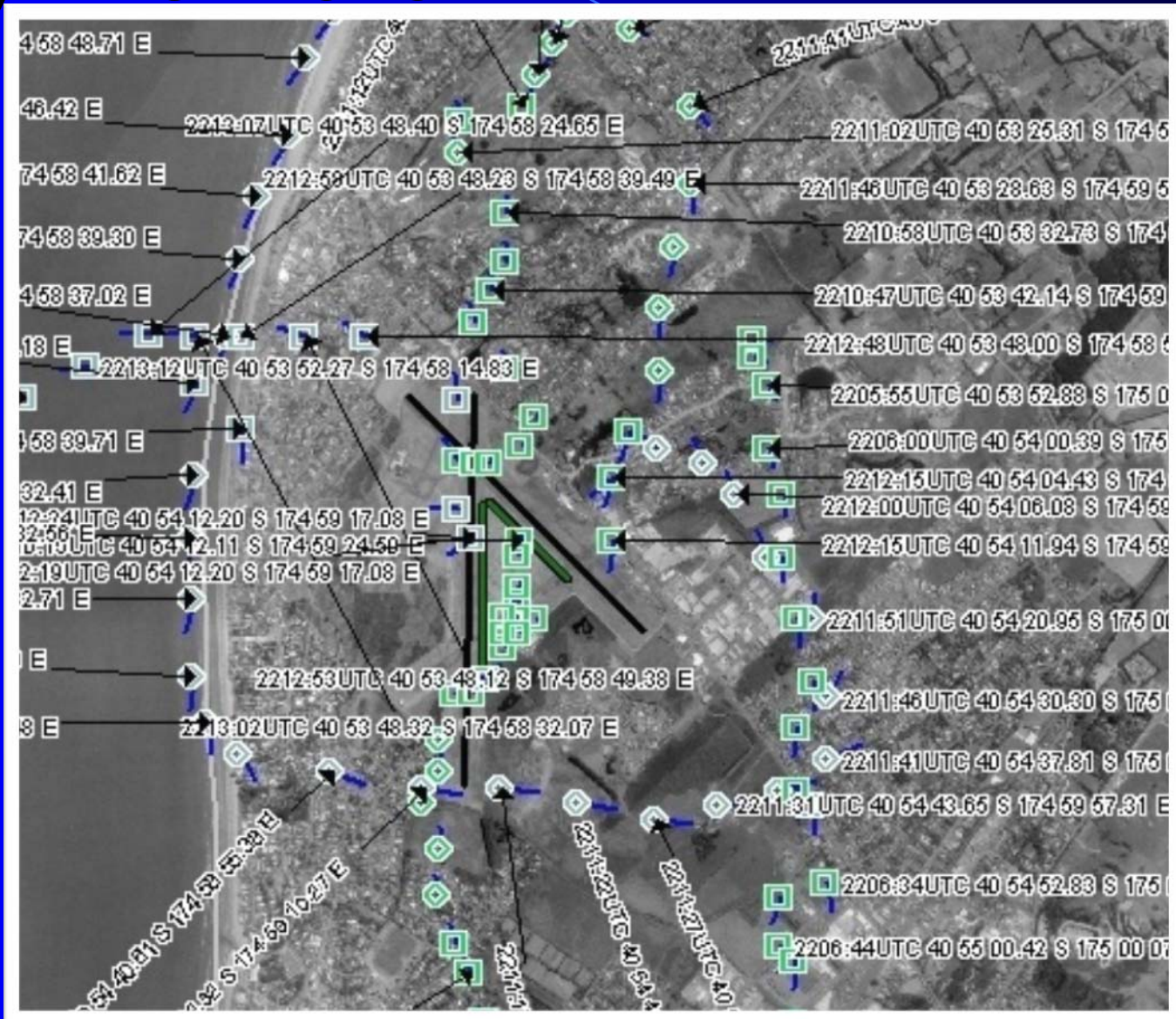
Computer System Requirements:

Processor	2 GHz +
RAM	> 1 Gb
Disk space	> 70 Gb
CD/DVD	Dual layer DVD
Video Card	NVIDIA > 32 Mb

Skyline Aircraft Track Plot



Skyline Data



X-Plane Flight Simulator

X-plane Demo

Questions

