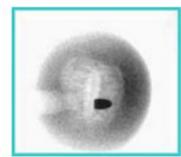


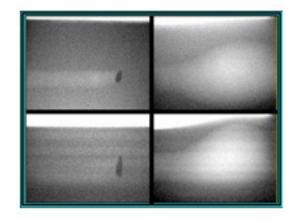
Multi-Detector Digital Flash X-ray Imaging System



A bullet is passing a melon imaged by RISE-FLASH-4D in 25 ns

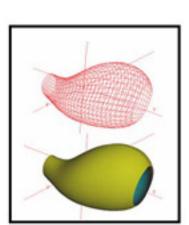


The melon broke in 1.5 ms after shot by a bullet



Left: Orthogonal images of a rifle bullet passing a gelatin block with 700m/s speed Right: A cavity appears in

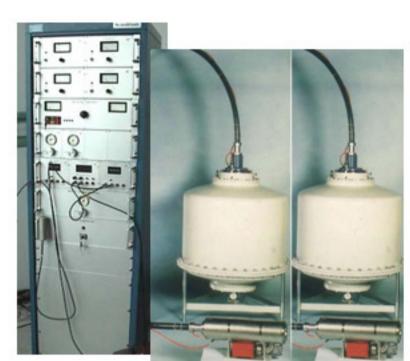
the gelatin block at 1.5ms later



3D gelatin cavity reconstructed by RISEHOOD software

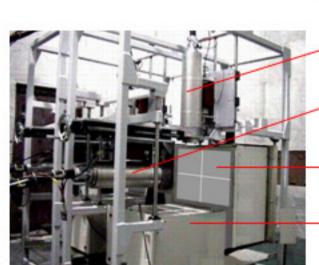
RISE-FLASH-4D at a customer's Lab

450kV 25ns Flash X-ray Generators



Data Acquisition Units

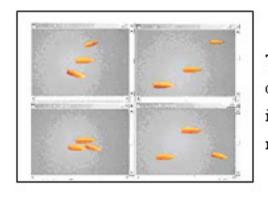
Main Computer



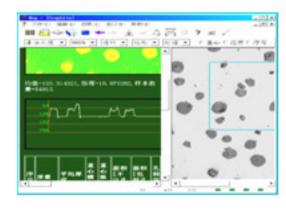
Vertical X-ray Tube Horizontal X-ray Tube

Horizontal Detector

Vertical Detector



Two instants orthogonal imaging of multi-bullet



Exploded pieces identified and numbered by RISE Software

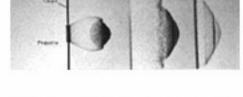
RISE-FLASH—4D FLASH X-RAY IMAGING SYATEM

A/9								
Flash X-ray Generator	Tube Voltage	Peak Current	Pulse Wid	th Focus	Exposure Dose 24 mar (1m)		Penetration	
Scand flash 450S	160-480 kV	10 kA	25 ns	2.5 mm			34 mm Fe	
Scand flash 150	75-150 kV	2 kA	35 ns	1 mm	25 mar (25	Scm)	60 mm Al	
Flash X-ray Detector	Sensitive Area		Sensitivity		Pixels		Contrast	
RISE-FLASH – 4DD	40 cm×30 cm		Full Bright / 1mR		768×596		50:1	
Image Acquisition Units	Channel	Acquisition Iv	Acquisition Mode Image		pturer C		onnection	
RISE-FLASH – 4DA	1, 2, 4	Self Identify		Matrix Met	Matrix Meteor-II		Net HUB	
Main Computer	High Level PC							
	Multi-Detector, Multi-Mode (Single, Orthogonal, Delay) Acquisition,							
System Software	1-4 image Display, 1-4 image saving with RISEHOOD Format *.dry or *.bmp format.							
RISE-FLASH – 4DS	Full Screen or Window Procession, Linear and Non-linear Filtering, Contrast Optimizing							
	Gray Adjustment, Gray Profile, Edge Enhancement, Pseudo Color, Objects Identification							
	and Calculation, Quasi-3D Reconstruction. Digital Documentation.							

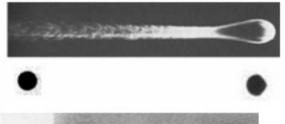
A Time Stopping Technology for X-ray Imaging

Application Examples of Flash X-ray Imaging

The first 4 images are quoted from Nondestructive Testing Handbook (ASNT)



Images taken at 3 instants of an aluminum ball hitting an aluminum plate with a speed of 6.71km/s



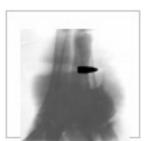
An 8mm aluminum ball with a speed of 3.5km/s is passing the air. Above: Picture taken by visible light camera. Below right: The right shape of the ablating ball can be seeing by Flash X-ray imaging.



Armour-piercing imaged by Flash X-ray



Image of firing a multi-bullet M-79 submachine gun





Wound Trajectory Research
Left: A bullet is passing an animal carcase
Right: The wound status at 0.5ms after shot



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