

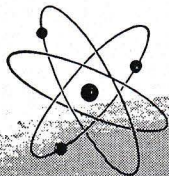
Plan to attend the 2nd annual:

# I R E CANADIAN CONVENTION AND EXPOSITION

Automotive Building, Exhibition  
Park, Toronto, Canada,

October 16, 17, 18, 1957

**ELECTRONICS & NUCLEONICS**



**REGISTER NOW!**

This year's I. R. E.  
Canadian Convention will  
be attended by thousands of  
engineers, technicians  
and buyers.

A three day programme of  
technical papers plus  
hundreds of exhibits  
combine to make this  
Canada's largest scientific  
event.

Programme sent on request.



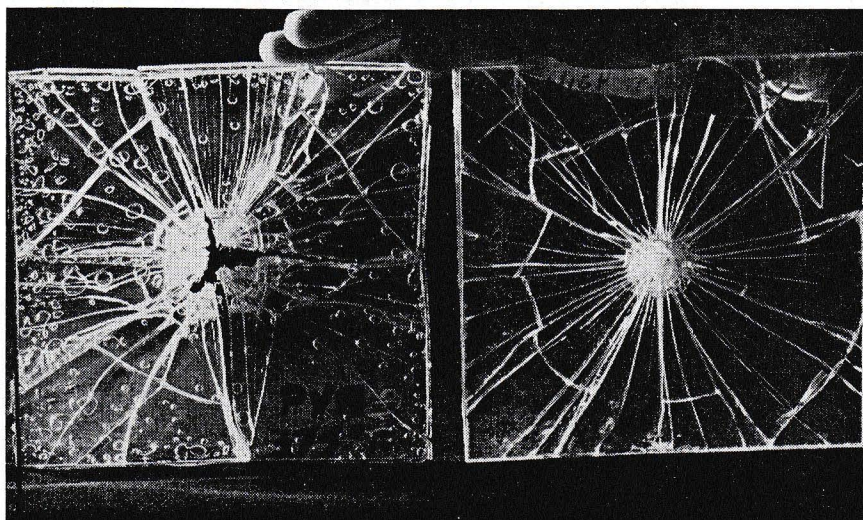
## I R E CANADIAN CONVENTION

Sponsored by the Canadian Sections  
of the Institute of Radio Engineers

Office: 745 Mount Pleasant Road, Toronto 7, Canada  
Telephone: HUdson 8-7768

**CANADA'S LARGEST  
SCIENTIFIC CONVENTION  
AND EXPOSITION**

## news digest



**STILL SAFE.** Silicone based glass (right) holds after impact at high temperature.

### Search for Non-shatter Shields

Scientists are investigating a new silicone-based rubber layer for use in aircraft windshields.

It was found that at high supersonic speeds the increased surface temperatures soon softened the flexible transparent plastic now in use. Apart from the bubbling which occurred, impairing vision, the windshield was rendered unsafe.

The new rubber interlayer is claimed to withstand twice the heat from air friction than the old. It is also said to

retain shatter-resistance qualities at low temperatures around minus 65F. Present interlayers would be expected to shatter at such a temperature.

During recent tests plastic interlayers of the type currently used, produced bubbles after 35 minutes at 400F. The newly discovered material remained unaffected. The above illustration shows the result of an impact after exposure to a temperature of 375F. The old-type windshield (left) shattered, while the new type on the right held fast.

### CF-100 Mk5 Wing Tests

Any implication of structural unreliability in the wing of the Mark V CF-100 was sharply refuted late in July by a detailed statement issued from Air Force Headquarters. The statement followed newspaper reports that an RCAF Board of Enquiry recommendation for full structural ground test of the Mark V wing following a fatal accident at Kinross, Mich., in May, 1956, had not been carried out.

The Kinross Board of Enquiry, it was pointed out, made recommendations that: 1) a competent aerodynamicist examine the general flying characteristics of the Mark V wing complete with rocket pod; 2) that a complete Mark V wing be submitted to a structural integrity test.

The action covered by the first recommendation had in fact been carried out before the accident and was repeated after it, the RCAF statement said. The second recommendation was examined but not acted upon because of other information revealed by the full investigation.

Exhaustive structural integrity tests carried out in connection with the Mark V wing in 1955 were detailed. The Mark

IV wing is essentially the same as the Mark V wing inboard of the extended tips and highest stress in the Mark V wing with Mark V loadings for the structural tests and this in fact was done. From this data the ultimate breaking point of the Mark V wing was conclusively determined by structural tests. These ground tests were confirmed by flight tests carried out to the limits specified. The flight test confirmed the integrity of the design.

The statement declares that "there is no evidence to indicate in any CF-100 accident failure took place within the established limits. Rather, all the available evidence points the other way."

The statement concludes there should be no implication the Mark V CF-100 had been subjected to improper or insufficient testing either on the ground or in the air.

"Every individual CF-100 is thoroughly tested on the ground and in the air both by the manufacturer and the RCAF. These tests, plus the amount of flying experience with the Mark V since it went into squadron service in early 1956 have shown that the aircraft is structurally sound."

Aug 1957