METHODS TO AVERT HIJACKING STUDIED

Use Would Be Limited and Some Airline Officials Are Dubious About Prospects

By RICHARD WITKIN

The perfection of several devices to intensify the screening of passengers and baggage during loading of airliners is "just around the corner," the director of security of Pan American World Airways said yesterday.

The official, Frank Cardman, vaid too that the airlines were developing systems for putting down hijacking attempts in flight.

But in the aftermath of the hijacking of four United Statesbound planes by Arab guerrillas Sunday, he emphasized that, to minimize chances of injuring bystanders or causing a crash, such measures would be used only when it was felt that they insured maximum safety for passengers and crew.

"It's not fair to say we're just going to keep turning airplanes in the direction the hijackers want to go," Mr. Cardman declared.

Others Less Confident

Other industry sources appeared less confident about soon finding relatively safe ways to stop hijacking once they get started. And there was almost universal opposition to copying the Israelis' tactic, illustrated on an El Al plane Sunday, of carrying armed guards and having them use guns in overpowering hijackers.

To avoid simplifying the task of would-be hijackers, the Pan American official declined to detail the devices being worked on. There has been considerable talk in the industry about several approaches to the problem of interrupting hijacking attempts without undue risk.

One approach calls for feeding a basically harmless gas into the passenger-cabin ventilation system and temporarily incapacitating the hijackers along with the rest of the occupants. The cockpit crew could protect themselves with gas masks.

Another approach involves dart guns that would inject hijackers with a substance that would temporarily paralyze them.

A third alternative would be use of so-called "stuh guns" being tested by the police in Berkeley, Calif., for riotcontrol work. The guns fire small bean bags at the speed of a pitcher's fast ball. The blow is enough to incapacitate the person hit but, because it is distributed over an area the size of the flexible bag, it is not enough to kill or inflict serious injury.

Sniffing for Explosives

The highest hopes for intercepting hijackers as they board are attached to devices for sniffing the presence of almost any explosive. It is known that some experimental sniffers are already in service, apparently by El Al if not others.

Over the last year or more widening use has been made of magnetometers, which detect the presence of a gun or othen metallic object as a passenger walks by. They are commonly used in conjunction with visua observation of passengers usually when they buy tickets to see if they betray traits believed to be characteristic of hijackers.

A big drawback of magnetometers is that they do not detect nonmetallic explosives. Another shortcoming is that they can be activated by keychains or other everyday objects.

Drawbacks aside, the magnetometers are given large credit for the sharp decline in hijacking of United States airliners this year compared with 1969.

An article in the current issue of Airline Pilot, the publication of the Air Line Pilots Association, reports that in the first six months of this year there were 11 attempts to hijack American planes, seven of them successful. In the same period in 1969 there were 26 attempts, 21 successful.

Four in U.S. Since June 30

The author, Franklin Oelschlager, enforcement director of the Air Transport Association, said he believed there had been only four hijacking of United States planes since June 30, including the two Sunday. The A.T.A. is the trade organization of scheduled American lines.

The incidence of hijackings of foreign aircraft shows no such improvement. That is widely attributed to the fact that a sizable percentage of cases involving foreign lines are the work of militant political group whereas many in this country are the work of disturbed persons.

disturbed persons. In addition, several long prison terms have been imposed on American hijackeers who returned from Cuba after finding the hospitality there much less than anticipated.

One puzzling aspect of the hijackings Sunday was why security precautions had not been effective.

Officials of Trans World Airlines, which has been a prime victim on international routes and has put in force one of the most comprehensive screening systems, indicated that it was in use zt Frankfurt.