artificial stimulation of sexual desire.

And late marriages are encouraged by the state through programs which stress the need for education (especially political education) before starting a family. Men do not often marry before they are in their late 20's, and the researchers report that in Chinese maternity wards there are rarely any women under 23 and few over 33. Thus child bearing is strictly circumscribed to a 10-year period in a woman's life, and two children (sometimes three in rural areas) are regarded as the ideal number. To achieve this goal, the whole range of techniques common in Western nations is used: abortion, intrauterine devices (IUD's), tubal ligation, steroid pills and injections, condoms, and, occasionally, vasectomy.

Just as important, all of these techniques have been made freely and safely available through medical programs that extend down to the most remote rural commune. The barefoot doctor program, which gives promising young high school graduates six months of intensive medical training before sending them into rural areas to operate dispensaries, appears to be one of the most successful aspects of the new Chinese medical system initiated by the Cultural Revolution. At slightly higher levels of the system, registered nurses, practical nurses and midwives perform many of the procedures—including abortions and tubal ligations-performed only by doctors in Western nations. "It was stated in Canton, Wuhan and Peking," say the two researchers, "that an abortion performed by nurses is much safer than one by doctors because nurses tend to be more careful." Abortion is usually by aspiration in the first 12 weeks of pregnancy, and, due to careful aseptic techniques, "mortality . . . seems to be nonexistent or extremely low." Likewise, a simplified transabdominal tubal ligation is regarded as a minor operation and it is done with local or acupuncture anesthesia. Complications are rare.

To secure precise national data on the effects of the programs is virtually impossible, report the two obstetricians. But local statistics tend to bear out the claim of fewer than 20 births per thousand. Perhaps just as striking are the local figures on infant mortality. The authors visited the International Peace Infant and Maternity Hospital in Shanghai where authorities told them the 1971 infant mortality rate was 19 per thousand. Equally striking was the report that during 46,000 deliveries in the hospital between 1962 and 1971, only five mothers were lost. These figures compare favorably with those for the United States-where capital and material resources are immensely greater.

## Jumping jumping jacks before they jump

Skyjacking, once an exciting spectator sport, is quickly becoming a drag. The self-styled Robin Hood of the sky has degenerated into nothing more than a common criminal with a penchant for the bizarre and a desire to get publicity by aping the aerial antics of previous attempts. By now skyjackers have intruded upon the lives of so many people (more than 450 passengers and crew members have been murdered during skyjackings) that more vigorous attempts are being made to ground them.

When the crime was new and novel it presented a unique opportunity for psychiatrists to study the mental make-up of this particular type of criminal, and to suggest ways of preventing the crime. Dallas psychiatrist David G. Hubbard was able to interview many captured skyjackers and draw a composite picture of their personality. From this knowledge he was able to predict the present explosion of skyjackings (SN: 2/12/72, p. 108). In 1971 there were 27 such attempts. There have already been that many in 1972.

Hubbard's suggestions for preventing air piracy were also based on his knowledge of the skyjackers' personality type. The first thing he suggested was to keep from triggering the idea of skyjacking in a predisposed mind. This could be done by deemphasizing media coverage. Another method would be the use of diplomacy and negotiation to eliminate safe havens. The skyjacker should be prosecuted at his destination or returned immediately to the scene of the piracy for prosecution.

The new type of skyjacker, the jumping jack, Hubbard says, must be handled differently. He has interviewed nine of these parachuting extortionists and says they are similar to the original skyjacker but closely related (psychologically) to the bank robber. Technical means, he says, should be used to prevent them from jumping from the plane. Four airlines announced last week that the door usually used by jumpers will be sealed during flight.

This may be effective but all previous methods have failed to stop the game. For this reason the airline pilots got into the act and tried to force the United Nations to set up international rules for the return of all skyjackers. The pilots used a oneday, worldwide walk-out to force this action. They failed for lack of support but they may have done some good. Hubbard explains that the skyjacker sees himself as Robin Hood and the authorities as the wicked Sheriff of Nottingham. The Robin Hood does not mind frustrating the authorities but he usually does not want to perturb the people or the pilots. The strike showed that the pilots are anything but calm.

The strike and the recent rash of skyjackings have spurred further action. President Nixon, last week, called for a mandatory search of all passengers and carry-on baggage on east and west coast shuttle flights. The Federal Aviation Administration wants this for all flights and if the airlines do not cooperate the FAA might try to enforce it by legal means. The FAA is presently shopping for magnetometers to be placed at every airport boarding gate. Congress is preparing to authorize up to \$3.5 million for this. The FAA is also emphasizing tighter airport security and plans to set up a school this fall in Oklahoma City to instruct local law officials and airport personnel in skyjacking prevention.

For the safety of pilots, some airlines may install bulletproof cockpits. For the safety of passengers and crews, John J. O'Donnell, president of the Air Line Pilots Association, is on a committee to find a nonlethal weapon to use aboard planes.

All of this security, it is hoped, will foil future attempts. But if attempts are made ALPA wants to be sure the skyjacker has no place to go. A plan is being worked out to boycott all airlines serving countries that harbor skyjackers. In this attempt ALPA has the backing of AFL-CIO President George Meany who says, "there must be an end to this dastardly threat to life in civilized human relations." His union members will refuse to service the aircraft of those nations and air lines not honoring the boycott. Congress may also act on this matter. Senators Warren G. Magnuson (D-Wash.) and James B. Pearson (R-Kan.) have asked for legislation requiring the President to deny domestic landing rights to carriers from nations that harbor skyjackers. Their legislation also calls for a minimum 20-year sentence for the crime of skyjacking.

Hubbard's suggestion about limiting media coverage, however, is not getting much support. Bob Schulman at ALPA says some of the wire services and other media representatives are cooperating by limiting coverage of tactics and details on skyjackings. But a complete blackout is unlikely.

Philip L. Geyelin, editorial page editor of the Washington Post, says, the publicity is on the side of the pilots and the public. "The more we know about tactics," he explains, "the more we may be able to persuade the airlines to do something about security." When these things become humdrum, he says, they may be put on the back pages. Until then, it is the page-one headlines that are forcing Congress and the airlines to act on the necessary security measures.

science news, vol. 102