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## DEVELOPMENT OF A BEHAVIORAL PROFILE FOR AIR PIRATES

JOHN T. DAILEY†

### I. INTRODUCTION

THE WORD "HIJACK" apparently has no roots in the King's English, originating completely in America. It was widely used among members of the International Workers of the World during its heyday from 1912 to 1920 and originally meant a member of a band of hobos who preyed on harvesters of the Midwest and Northwest United States. It was also used as a general synonym for holdup.<sup>1</sup>

"Hijack" first developed as an interjection, a command given by robbers to their victims. It meant: "Hold your hand up high, Jack!"<sup>2</sup> The use of the word spread in America following the repeal of prohibition during which era the term was applied to those who robbed bootleggers of their wares.<sup>3</sup> At that time the accepted spelling became "hijack" instead of "highjack." The word also was applied to those who held up trucks.<sup>4</sup>

"Hijack" has become very widely used, especially in the slang of criminals, and has developed many meanings, some of them sexual. It has been broadly used to mean the use of coercion or trickery to force individuals to do what they do not want to do<sup>5</sup> and has become descriptive of the holding up, robbery, or seizing of aircraft. In 1961 the weekly news magazines in the United States popularized the term "skyjacker" for air pirates.<sup>6</sup> However, the official usage remains hijacker unless the more specific term of air pirate is used.

### II. HISTORICAL DEVELOPMENT OF HIJACKING — THE EARLIEST AIR PIRATES

The threat of air piracy has been a serious one from the earliest days of air commerce. An early book entitled *Aerial Transport*,

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1. L. BERREY & M. VAN DEN BARK, *THE AMERICAN THESAURUS OF SLANG* 461 (1967).

2. H. MENCKEN, *THE AMERICAN LANGUAGE* 719 (3d ed. 1963).

3. *Id.* at 717.

4. H. WENTWORTH & S. FLEXNER, *DICTIONARY OF AMERICAN SLANG* 257 (1960).

5. *Id.* It is interesting to note the words used in Spanish to describe the hijacking of airplanes. Most often, the word "sequestrador" is used for hijacker and for kidnapper. The word "robo," meaning robbery, is also used quite often. *Diario Las Americas* (Miami), Oct. 10, 1969, at 1, col. 1.

6. 78 *TIME*, Aug. 18, 1961, at 18; 58 *NEWSWEEK*, Aug. 14, 1961, at 13.

contained a section designated "Flying Pirates," wherein the author recounted the story of a dashing criminal who intended to establish himself on some remote island in the Pacific and prey on commercial aircraft as soon as routes were established.<sup>7</sup> On his camouflaged island, he would listen by wireless to learn the movements of the aircraft which he intended to hold up. The author did not think the scheme would work because the pirate would have to land the aircraft somewhere and "he would then find that aerial law has a phenomenally long arm, and that a net of observations and detection would speedily enmesh him."<sup>8</sup>

One of the earliest airlines facing active aerial piracy was the French Lignes Latécoère during the years 1923-26 when it was establishing air carrier service across the Spanish Sahara.<sup>9</sup> The desert was infested by *pillards* (pillagers) who lay in wait for any airplane in distress. They would seize the aircraft, torture and murder the crew, or hold them for ransom.<sup>10</sup> The tribesmen would also shoot at the planes as they flew over the desert.<sup>11</sup> As a result there was once a mutiny of the pilots at Casablanca who refused to fly the dangerous stretch of desert.<sup>12</sup>

On July 22, 1925, two French pilots, after a forced landing, had a shoot-out with a band of attacking Moors and killed two of them. In December 1925, pilot Marcel Reine was taken prisoner in the desert and only released after payment of an exorbitant ransom.<sup>13</sup> In 1926, Jean Mermoz, another French pilot, was captured, locked up in a cage, and transported across the desert for days. He was released for a ransom of 1000 pesetas.<sup>14</sup> On November 11, 1926, pilots Gourp and Erable and mechanic Pintado were attacked by tribesmen after a forced landing in the desert.<sup>15</sup> Due to the threat of the *pillards*, the airplanes always flew in pairs so one could rescue the other, and Erable had landed to rescue Gourp and Pintado. Erable and Pintado were killed outright in the attack. Gourp was wounded and carried off by the attackers. In captivity he attempted suicide by drinking iodine. Although he was rescued after payment of the "usual ransom," he died later.

There were a number of other pilots held for ransom which was paid, usually after negotiation through friendly Arab intermedi-

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7. G. THOMAS, AERIAL TRANSPORT 218-19 (1920).

8. *Id.*

9. R. CHAMBE, HISTOIRE DE L'AVIATION 304-10 (1948).

10. A. DE SAINT-EXUPÉRY, WIND, SAND AND STARS 40-47, 127 (1939).

11. *Id.* at 138.

12. R. RUMBOLD & M. STEWART, THE WINGED LIFE 43 (1950).

13. *Id.* at 65.

14. *Id.* at 65-66.

15. *Id.* at 66.

aries. In June 1927, pilots Reine and Serre were captured. A million guns, a million sheep, and 5 million pesetas were demanded as ransom for their release. After negotiating for 117 days, the ransom was eventually reduced to a reasonable figure and paid.<sup>16</sup> Eventually the head of the airline operations in Africa tried to minimize the attacks on the aircraft through parleys and negotiations with local sheiks.<sup>17</sup>

During 1930 and 1931 a number of revolutions swept through South America breaking out in Bolivia, Peru, Argentina, Brazil, and finally Chile. Pilot Tom Jardine was seized at Arequipa and forced to ferry an armed band of revolutionists to Tacna, Peru. Upon landing he managed to escape on foot to Chile.<sup>18</sup> Pilot Byron Rickards was ordered, at gunpoint, to fly revolutionists from Pisco to Lima, Peru. He refused to do so and somehow managed to avoid being killed.<sup>19</sup> In 1930, in Brazil, an excited passenger drew a gun and was rapped over the head with a pyrene bottle by the flight mechanic.<sup>20</sup> In 1931, a Pan American Sikorsky was "kidnapped" by a mechanic and taken to a revolutionary band which 2 days later, flew it into a mountain.<sup>21</sup> In that year there was even an armed confrontation between two airlines in the "Battle of Lake Montenegro." A Pan American aircraft made an emergency landing at the installation of a rival airline at Lake Montenegro in Brazil. When they attempted to refuel, the rival airline agent trained his rifle on the Pan American pilot and ordered him to leave.<sup>22</sup>

Consequently, the airlines in South America had to take extensive precautions because of the threats of the revolutionary groups.<sup>23</sup> At times it was necessary to give radio warnings so the aircraft could make emergency landings at certain secret island berths to avoid being captured by the revolutionists.<sup>24</sup> At one time in 1931, Pan American's operations were brought to a complete standstill by a revolution in Brazil, and most of its personnel had to be discharged.<sup>25</sup>

Another area where commercial aircraft were subject to the threat of violent attacks was China in the early 1930's when Pan American was beginning its penetration of that region.<sup>26</sup> An early Pan American survey flight there narrowly escaped capture by

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16. *Id.* at 71.

17. *Id.* at 43.

18. B. DAY, *GLACIER PILOT* 51 (1957).

19. *Id.* Pilot Rickards was subsequently hijacked in El Paso, Texas, on August 3, 1961.

20. W. GROOCH, *WINGED HIGHWAY* 91 (1938).

21. *Id.* at 158-59.

22. *Id.* at 97; M. JOSEPHSON, *EMPIRE OF THE AIR* 74-75 (1944).

23. M. JOSEPHSON, *supra* note 22, at 86.

24. *Id.* at 87.

25. W. GROOCH, *supra* note 20, at 122-23.

26. *Id.* at 219.

Chinese pirates and it was concluded that any plane forced down along the China coast would be in grave danger unless armed with a machine gun.<sup>27</sup> This precaution was prompted by the many river pirates who made life unsafe beyond the city limits. Pirate gangs often looted vessels along the coast and held the wealthier passengers for ransom. Typically, several well-dressed members of the gang would book passage on the boat. When abreast the pirate rendezvous, they would draw their weapons and force the captain to divert to the spot where the pirates lay in wait.<sup>28</sup> As a result of these naval hijackings, it was believed by airline personnel that a major attraction of air flight to the Chinese was its greater safety from the pirate attacks.<sup>29</sup>

Nevertheless, in 1931, one of the planes of Eurasia Aviation Corporation was shot down by Mongol irregulars in Outer Mongolia. The two pilots were captured, imprisoned, and tortured. They were released months later after extended diplomatic negotiations.<sup>30</sup>

The concept of a lone passenger "hijacking" an airplane instead of a steamer was well known in China in 1933 when a CNAC Sikorsky disappeared mysteriously. Chinese newspapers speculated that a passenger, in league with the Communists, had shoved a gun against the pilot's neck and forced him to fly to some rendezvous. However, this was contradicted by the later finding of some of the plane's wreckage in the water.<sup>31</sup>

One airline in post-World War II Alaska used to "frisk" the passengers on some flights and take away all their guns, knives, and booze.<sup>32</sup> The pilot had a 5-cell flashlight filled with shot ready to deal with any uncooperative passengers who objected to being frisked. Pilots also carried guns as part of their regular flight equipment and locked the cabin door. When the passengers were heard to be fighting, the pilot would just pull back on the stick and smack the passengers back into their seats. To quiet unruly drunks, the crew would put on their oxygen masks and go up until the drunks passed out.<sup>33</sup>

As can be seen, airlines from the very earliest days have had to face the threat of violent attacks on their aircraft. The nature of these attacks has changed with the years, but there seems to have been a fairly regular and continuous evolution in the nature and modus operandi of individuals or groups attacking and seizing control of commercial aircraft for various purposes. Modern hijacking did not

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27. *Id.* at 168.

28. *Id.* at 219.

29. *Id.*

30. Forman, *China Spreads Her Wings*, AVIATION, May 1936, at 12.

31. W. GROOCH, *supra* note 20, at 240-41.

32. B. DAY, *supra* note 18, at 295.

33. *Id.* at 296.

spring suddenly out of the blue, but has a long line of antecedents as do most social phenomena. It is interesting that seizure of aircraft for ransom is one of the very oldest and yet also one of the most recent types of armed attack on commercial aircraft.

### III. STUDIES OF THE CHARACTERISTICS OF HIJACKERS

#### A. *Psychological Characteristics of Hijackers*

In order to cope with the problem of air piracy or hijacking of aircraft, we had to determine: what kinds of people do the hijacking; how they go about it; why they do it; and what might be done to prevent it. Hijacking of United States aircraft to a country of refuge should be considered as an irrational act carried out by irrational, but not necessarily insane, people.

In several cases there have been hijacking attempts with no apparent destination. The act of hijacking is nonutilitarian. The essential gratification to the hijacker is from an act of high drama, a brief moment of glory and power for a previously ineffectual and unsuccessful individual. It is analogous to a dramatic suicide such as self-immolation by fire, to committing a sensational crime of violence, or to carrying out a coup against one's enemies. The common denominator is the attention and publicity received.

The original studies concerning the psychological nature of hijackers led to the conclusion that as a group they are neither very resourceful nor very determined.<sup>34</sup> They also seem to be a very different sort of social subgroup than that represented by the usual air traveler. The usual air traveler is a successful member of society. Hijackers, as a group, represent the failures in society. To the extent that this difference between the two populations exists, one can capitalize on it by setting up criteria which differentiate the two populations and use these criteria as a basis for a differential screening program, concentrating the screening on those types of individuals most likely to represent a threat.

Various kinds of information had been recorded on past hijackers and was studied in the development of the behavioral profile.<sup>35</sup> It was anticipated that this information would indicate that hijackers, although falling into several different types, would be distinctively different from the general population and have characteristics found in a very small proportion of the air passenger population. It was expected

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34. FAA, U.S. DEP'T OF TRANSP., FINAL REPORT OF THE TASK FORCE ON DETERRENCE OF AIR PIRACY pt. II (1973) [hereinafter cited as FINAL REPORT].

35. *Id.*

that this knowledge could be extremely useful in narrowing the focus on the types of individuals most likely to attempt to hijack United States aircraft. It could also help to indicate steps that might reduce the motivation for hijacking.

### *B. Methodological Problems*

In studying hijackers one encounters a serious methodological dilemma. One can employ extensive interview and clinical procedures with those hijackers who may be available or use statistical procedures on all cases, studying the information about them that has been documented after the hijacking. The latter procedure was utilized. Differing conclusions may sometimes be reached from the two types of study, but it is believed that the differing conclusions are more a result of the nature of the sample available for interview rather than a result of the different procedures for study. A study of the information about those hijackers who are available for possible interview study indicates that their cases comprise a sample that differs in most respects from the total group of hijackers.

## IV. DEVELOPMENT OF THE BEHAVIORAL PROFILE FOR HIJACKERS

### *A. Objective Criteria of Behavior*

A number of objective criteria of behavior were established and experimentally utilized in various combinations at various airports. A metal detector adapted for passenger screening on the basis of field trials was used for weapons detection. It was, of course, necessary to utilize only simple objective criteria that could be applied by airline personnel with a minimum of training and without interfering with their responsibility of expediting the loading of passengers. After considerable experimentation, it was found that a relatively small number of such criteria could be used in combination to clear at least 99 per cent of the passengers on the basis of information about them and their observed behavior. It was eventually found that criteria could be established which could clear 99.5 per cent before they reached the magnetometer. The magnetometer was about 50 per cent effective in clearing otherwise uncleared persons because their magnetic signatures were lower than a level that would indicate the presence of a weapon. The psychological or behavioral criteria combined with the magnetometer, then, became a two-element screening system that was 99.75 per cent effective in clearing individuals regarded to be low risks as potential hijackers. Other means, such as interviews and voluntary search, were

used to process the remaining one-quarter of 1 per cent. The proportion of the passengers who ultimately were denied passage was extremely small, and a high percentage of these people carried weapons typical of past hijackers.<sup>36</sup> The first year of operational experience by several airlines with voluntary use of the profile and magnetometer system showed it to be practical and suitable for widespread utilization by all airlines.

### *B. Adapting the System to New Conditions*

Since hijacking is a social phenomenon that is in the process of evolution, with new ways of hijacking being developed and new destinations being discovered, the types of hijackers will, of course, change from time to time. Therefore, the psychological or behavioral profile will need to be modified accordingly. There is also the problem of maintaining the security of the behavioral profile criteria which obviously would lose their effectiveness if they were made known to the public. Since the subpopulation of hijackers is so distinctively different from the population of air travelers, there is a very large number of types of criteria that markedly differentiate between the two populations. Thus, as it becomes necessary, new factors can be introduced to replace those compromised by a breach of security or made obsolete by changes in the nature of the hijacking population. It would also be possible to computerize the profile. This would make it possible to use much more numerous and more sophisticated sets of criteria and would make the whole process much less subject to security leaks.

A large number of foreign countries and airlines have expressed interest in the Federal Aviation Administration's passenger screening system. They have been briefed on the system, and it has been stressed to them that the American psychological profile may not be directly applicable in a foreign situation. However, there is reason to believe that they could develop a similar system of their own after careful studies of the observable aspects of their passengers' behavior. That development would have to be based on their intelligence regarding the group posing the threat.

### *C. Operational Results of the System*

During the first 3 years in which the system was in operation, several thousand arrests were made of individuals who were found either to possess weapons or to be otherwise in violation of the law.<sup>37</sup> In addition, thousands of weapons have been removed from passengers

36. *United States v. Lopez*, 328 F. Supp. 1077, 1084 (E.D.N.Y. 1971); FINAL REPORT, *supra* note 34, at pt. III.

37. BUREAU OF CUSTOMS, U.S. DEP'T OF THE TREASURY, REPORT OF ARRESTS (1973).



who were then permitted to board, and a number of weapons have been discarded in various places near the loading area before boarding by passengers who saw warning signs.<sup>38</sup> There is evidence that several of those arrested were planning to hijack the airplane they were attempting to board.<sup>39</sup>

The screening system became compulsory for all airlines in February 1972.<sup>40</sup> In January 1973 it was replaced by a screening system under which all passengers are subject to a magnetometer screening and a search of their carry-on luggage.<sup>41</sup>

## V. CONCLUSION

It was found that the screening system could be employed with minimum disruption of operations of the airlines, with minimum personnel needed to operate the system, and with minimum undesirable side effects, such as unfavorable public reaction. It was also found that the passenger surveillance system seemed to be a positive and practical means of minimizing the chance that potential hijackers would board an aircraft without first being disarmed. During the early stages of implementation of such a system, the greatest benefit comes from psychological deterrence. However, as the coverage becomes substantial, or even complete, the system becomes a positive preventive measure and not just a deterrent.

The profile system was, of course, an interim system designed to be appropriate for a lower level of emergency than now exists. It was anticipated from the beginning that a 100 per cent screening system would be required during periods of high levels of emergency. In case of any future subsidence of the severity of the hijacking threat, an interim system might again become appropriate.

It is possible to expand the basic approach to screening for threats other than that of hijacking and also to develop similar systems for other nations. In adapting the approach to other situations, it is necessary to study the situation to develop a very clear idea of the nature of the personnel posing the threat. It would be necessary also that such a group of personnel be very distinctively different from the normal traveling public. Further, the approach might be profitable for the problem of checked baggage, mail, and freight to the extent that it will be possible to relate these articles to the people owning them and to classify them in such a way as to enable searching or surveillance to be focused on a small proportion of the total flow.

38. *Id.*

39. FAA, U.S. DEP'T OF TRANSP., AIR PIRACY SCOREBOARD REPORT (1972).

40. 14 C.F.R. § 121.538 (1973).

41. Emergency Order of FAA, U.S. Dep't of Transp. Press Release No. 103-72 (Dec. 5, 1972).