

FILM REVIEWS

CRISIS! Television production by the British Broadcasting Corporation.

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1986 will be remembered for some time as a year of serious international terrorism, much of it focused on air transport. The apparent regularity of bombings and airliner hijackings engendered public emotional response and fear of flying on certain routes. And for governments in several countries the problems and complexities of negotiating with terrorists became very real crises. The BBC have skillfully woven fact and fiction to present an intriguing simulation program entitled **CRISIS!** on these very problems and complexities.

The scenario is as follows. An airliner of the (imaginary) British Arab Airways is hijacked by members of a Palestinian organization to Beirut, Lebanon, and threats are made to kill passengers (all British) at intervals till demands are met. The nature of the demands gradually emerges as: (i) 5m ransom, (ii) release of one prisoner in the U.K. found guilty on explosives charges, and (iii) release of 12 Shia students held temporarily, pending investigation, under the Prevention of Terrorism Act. The government of the day responds by setting up a special committee to deal with the crisis. Realism is added by involving real politicians and experts, not just actors. The committee comprises politicians Roy Jenkins, Gerald Kaufman and Francis Pym (all serving Members of Parliament for the Social Democratic, Labour and Conservative Parties respectively), and advisers Sir Anthony Parsons, Lord Rawlinson, Q.C. and Lt. General Sir David Young, under the chairmanship of Professor Paul Wilkinson of the chair of international relations at Aberdeen University and an expert on terrorism. Some four days of crisis discussions are telescoped into the two hour "war game" program. And to maintain the realism, the whole exercise is clearly based on the

facts of recent hijack experiences; newsreel footage is used to give an authentic context; current BBC news reporters Robert Harris and Jeremy Paxman provide up-dating media reports from Beirut; and newsreader Pamela Armstrong keeps the nation informed of events in regular news reports. Actors are only used to depict scenes on the hijacked airliner and on the ground at Beirut. In addition, six alternative endings were prepared, and the final outcome in the program depends on the judgments and decisions of the political debate of the special committee. Thus the outcome of the simulated discussions is not pre-determined, but there is nevertheless a realistic filmed outcome resulting from the decision-making process.

It is the examination of the decision-making process which is really at the heart of the program, as the crisis develops from day to day. Early on a unanimous decision is taken by the committee not to give in to the hijackers' demands, as a dangerous precedent would be set which could lead to more terrorist attacks threatening the lives of tourists and diplomats alike. The military option is explored--60 percent chance of success with 20 percent casualty rate, given time for rehearsal and adequate intelligence. Negotiations start with the hijackers through an intermediary Lebanese lawyer to buy time. But the complexities start to mount up as time passes into the second and third days of the emergency: one hostage is shot; eight others are smuggled off the plane to an unknown location in the city, and one of these turns out to be the founding chairman of a successful company whose share prices slump, but which has kidnap insurance--the company negotiates independently for the executive's release; no evidence is found against the 12 students and they are released--but can that be interpreted as giving in to the terrorists' demands?; 100 members of Parliament criticize the government's handling of the crisis; a stage-managed press conference is mounted by the hijackers, heightening the emotional pressure on the committee from relatives; the intermediary negotiator demands a 1m personal sum for "expenses" and ceases to act when the bribe is refused; the presence of Lebanese troops on the ground around the hijacked airliner creates problems for any military rescue option.

As time runs out, a military rescue operation is mounted by a specialized S.A.S. anti-terrorist squad, resulting in 15 fatalities (10 military, 5 passengers) and 25 hostages rescued. The 7 hostages moved to Beirut

city are later located, but the local military and paramilitary tension following the storming of the airliner, and the hazard to civilians and hostages rules out a further rescue bid. They inevitably join the long list of forgotten hostages who have to await long-term negotiations for their release. Meanwhile, the mastermind behind the hijacking, who himself was not on the airliner but kept command by radio, escapes on a plane westward bound across the Mediterranean. An urgent decision then has to be made on whether or not to attempt interception to force a landing in neutral territory, or Gibraltar, to attempt to bring the man to justice. The debate revolves around issues of international law and the political implications at home and abroad. The decision is made not to attempt interception.

Of course there are limitations with this type of simulation which inevitably stretch the viewer's credibility. The artificial telescoping of timescale limits the time available for discussion of issues and for decision-making; in reality the plane would probably have a number of non-British passengers, adding complications to the negotiations; there would be much more extensive use of international diplomatic channels and processes; the intelligence input from various sources would be far more complex. But despite these limitations, the construction of the program, the use of "real" people in key roles rather than actors, the careful use of realistic film inputs, and the avoidance of a single predetermined outcome, gave the viewer a relatively authentic glimpse of the complex issues (political, military, social, emotional, etc.) involved in a hijacking crisis and the difficult decisions which have to be made by those in government. The central issue (and its longer term implications) of whether to give in to terrorist demands or stand firm emerged clearly.

CRISIS! is the kind of film which could be useful in the study of political decision-making, or alternatively could provide an idea for practical simulations for use with students of political science or post-experience public policy professionals, for example. As with all role-play exercises de-briefing would be essential to maximize benefit. The day following transmission, during a phone-in viewer feedback program, one caller who missed the start complained that it was some time before she realized she was watching a hypothetical situation and not yet another terrorist attack.

WHY PLANES CRASH. NOVA, Television production by the Public Broadcasting System.

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This documentary, presented on NOVA, looks at various factors involved in commercial airline crashes. The central argument of the presentation is that while technological advances have made commercial flight safer, it is inaccurate to view the "lack of crashes" as the criteria by which to judge overall safety. It is the argument of the documentary that the "human error" component has not been addressed adequately. In support of the central premise, attention is given to the issue of "cockpit error."

The documentary suggests several reasons for commercial airline crashes. It is indicated by the documentary that the increase in commercial airline usage, and deregulation, have caused competition to increase within the airline industry. As a result, normal steps taken to insure safety have been reduced. However, this is qualified by the fact that the principle reasons for commercial airline crashes have been identified as being grounded in other factors.

According to the documentary, the principle reasons for past commercial airline crashes can be categorized as follows: crew error, the aircraft, weather, airport facilities, miscellaneous factors, and maintenance. Past investigations of commercial airline crashes by the National Transportation Safety Board (NTSB) have suggested that the fundamental reason for these crashes rests in "cockpit error" (or the "human factor"). As indicated by the documentary, 60 to 80 percent of all accidents are blamed on "cockpit error."

Interaction between members of the aircraft crew (Captain, First Officer, etc.) were suggested to be one-sided, with the Captain of the aircraft being viewed as having total control. The interpersonal actions of the Captain can, then, impact on the willingness of other crew members to bring "problematic situations" to the attention of the Captain. Thus, errors in judgment might go unattended. As the documentary

indicates, this might be brought about by the fact that many of the pilots who presently fly commercial aircraft have been indoctrinated into a system whereby the Captain of an aircraft is the ultimate authority; and questioning that authority is viewed as inappropriate. This view is further supported by Federal Aeronautics Administration (FAA) regulations that state that the Captain is the final authority of the aircraft.

The documentary introduces the concept of cockpit resource management (CRM). This type of program, while not universally used (or accepted), centers on the idea that the Captain of an aircraft should be a "manager." In this context, the Captain is still the final authority, but the input of other members of the crew is given greater attention. At the same time, it is argued, the distribution of tasks aboard the aircraft is given greater attention. The end result is the increased safety of the flight. To highlight this point, the documentary focuses on several cases in which the lack of "managerial skills" on the part of the Captain have caused crashes.

While cockpit resource management (CRM) is given attention, it is also noted that emphasis must also be placed on the interaction of "humans and technology." There is a concern, according to the documentary, about the reliance of crew members on new, more sophisticated technology. It is argued that this reliance might reduce the overall skill level of the crew members. This could, then, lead to problems resulting from inexperience in flying without the use of such equipment.

The crew of any commercial aircraft, as indicated by the documentary, is dependent on other human factors as well. Crew members rely on air traffic controllers, weather personnel, maintenance personnel, etc. While the crew (and Captain in particular) are the final decision makers, inaccurate information (or attention to detail by others involved in the flight process) can have serious ramifications for the overall safety of the flight. Thus, while crew members of a commercial flight must depend on their own judgment to a large extent, they must also depend on others for the "total safety of the flight."

The documentary also overviews the risks involved in commercial flight. The apparent perspective of many of the experts interviewed for this documentary is that more aircraft crashes will, without doubt, occur in the future. As a result, they are trying to identify the "principal factor"

tor" causing commercial airline crashes. It is evident here that the experts are defining most commercial crashes in terms of "cockpit error."

The documentary also brings to light, albeit implicitly, the total interaction that must take place to insure the complete safety of commercial airline flight. It would seem that while the central focus of the documentary is on "cockpit error," little attention is given to the fact that the safety of any aircraft flight (commercial or otherwise), depends on the coordination of several factors. It is therefore necessary to view the process of flight, not as the actions of an aircraft crew alone, but as the coordinated effort of many individuals.

The documentary does an adequate job of considering the various elements linked to "cockpit error." However, it is also probable that many crashes that have occurred in the past may have been the result of a series of events that encompassed the entire commercial airline system. It is at least arguable that the entire flight system (both in flight and on the ground) must function as an integrated whole for any flight to meet the necessary (or desired) safety standards.

There is no doubt that there is a need to identify problematic areas with respect to commercial airline safety. However, assigning "blame" for past airline crashes to "cockpit error" is only part of the answer. The expectation that air traffic controllers will function without error at all times is inappropriate. It is at least probable that overworked controllers and "old equipment" might play a part in reducing the overall safety of a flight. Further, weather information that is not transmitted accurately, or in a timely fashion, can intrude on the overall safety of a flight. Likewise, the number of miles each plane flies may act as a catalyst for diminished safety standards. In other words, an aircraft might be flown far too many miles before it is given an adequate maintenance check.

While the documentary does a good job of focusing on one of the central issues in commercial airline safety, it ignores the complexity of the system as a whole. It is not enough to "place blame" for a crash, rather it is necessary to determine what can be done to increase the efficiency and safety of the entire commercial airline complex.

THE EARTHQUAKE IS COMING. Television production by the Public Broadcasting System *Frontline*.

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This *Frontline* segment focuses on the vulnerability of California's urban centers to large-scale earthquakes. The film is presented in a news report format with a reporter conducting on-camera interviews with geologists, architects, urban planners, quake victims, and emergency personnel. Travelogue-style film footage of past and potential future earthquake sites is used throughout the program accompanied by an announcer/narrator, plus voiceover recordings of earthquake hotline reports.

The geological reality of earthquakes caused by the tectonic movements of the San Andreas, Calaveras, San Jacinto, and other faults is discussed with various geologists. It is noted that communities--many of which are rapidly expanding urban population centers--lie alongside or even on top of the San Andreas fault. These sites are overdue for an earthquake of catastrophic consequences; the last having occurred in San Francisco in 1906. Most of the experts interviewed do not make their statements in terms of **if** such an earthquake will occur, but rather **when** one will happen. It is proposed that a large earthquake--perhaps greater than Richter 8.0--is seriously overdue and certainly inevitable. Given the population distribution of the state, tens of thousands of people could be killed and many others injured.

Some of the problems of urban and industrial growth which may exacerbate the devastation wrought by a large earthquake are noted extensively in the film. Developers' continual practice of building housing tracts directly on or near fault lines, or cliffs and hillsides prone to landslides is shown as a major cause for concern. In the event of an earthquake, thousands of homes would be damaged or destroyed. Also, it is warned that Silicon Valley lies squarely on the San Andreas fault south of the San Francisco bay area. The type of architecture heavily utilized in that area ("tilt-up" buildings used as factory structures) may

be vulnerable to collapse in the event of a large earthquake in the area. Furthermore, a myriad of potentially hazardous chemicals used in industrial production, along with hazardous industrial wastes and fuels, are stored in surface and below-ground tanks and reservoirs. These may be subject to rupture and spillage in an earthquake situation. In such an event, the chemicals could be released into the air, soil, and groundwater compounding the damage, injuries, and perhaps fatalities caused by the initial tremors.

Various witnesses of earthquakes give testimonies concerning their personal experiences. Most describe the physical sensation of the tremor itself, while others describe their own activities. One man describes his "panic" flight during an earthquake (in this case, however, his reported "panic" would seem to be a rational reaction to the events at hand); a woman recounts her stark terror during an earthquake and the shock experienced by the town following the event. At one point the woman appears to be near tears, as though the experience left her with emotional scars. A Vietnam veteran discusses his reaction to an earthquake after returning home from a tour of duty. He and his buddies, waking from sleep, thought that they were under Vietcong mortar fire. Others comment that they continue to live in earthquake zones because "the view is beautiful," "we like the weather," or "well, we own the place now."

Earthquake prediction is discussed as an inexact--and usually unsuccessful--science. The usual geologists' methods are shown (creep meters, seismographs, and laser guns and reflectors), as are less orthodox methods. One geologist claims that he can predict impending earthquakes by the behavior of cats and dogs in terms of the number of runaway pets reported in newspaper classified ads.

Earthquake preparedness in California is discussed as well, though most of the officials on camera state that at this stage, preparedness is grossly inadequate. School children are shown performing earthquake drills. Mock earthquake emergency drills are also depicted. A San Francisco emergency medical services official states that a large earthquake would negate the type of medical response and care usually expected by the public, due to the losses of electricity, gas, transportation, supplies, and the hospital buildings themselves. A civil defense official in Southern California, somewhat given to hyperbole, proclaims

that Los Angeles is virtually "sitting on top of an H-bomb." He also states that in the event of a catastrophic quake, the injured would number more than "the available number of emergency room hospital beds in the free world." (Of course, this proposed magnitude of injuries seems unlikely. Considerable research shows that in such disasters, most of the injured are ambulatory and can be treated in the field or as outpatients. Emergency room beds would be needed, but this need would not tax the limit of the "free world.") Moreover, the financial infrastructure of the state, which is dependent upon banks' supercomputers that may "go down" in a quake, could very well collapse. It is argued that the ensuing economic crisis could possibly lead to a worldwide financial catastrophe. One bank executive interviewed noted that recovery from a catastrophic earthquake "would take decades," and cost up to \$44 billion. A "federal assessment" is referenced claiming that the "nation is unprepared for a catastrophic earthquake in California, . . . the response would quickly become disorganized and ineffective." The source of the report is not identified.

Overall, the film is excellent and is professionally produced, despite moments of drama and hyperbole. The documentary may be of greatest use to disaster planners and perhaps policymakers who must weight the costs of urban and industrial expansion into zones prone to natural hazards. However, public education would appear to be the producers' intent. The film may definitely force some people to give pause when considering moving into or investing in disaster-prone regions.