well combat units followed procedures, they would probably not be able to strike a good balance between negative and positive control. In all likelihood, heightened alerts would translate into escalating mutual suspicions; alert measures would be met with countermeasures, thus creating a cycle of reinforcing alerts and suspicions.

The superpowers have exacerbated the inadequacies of central control by the adoption of *de facto* launch-on-warning. Launch-on-warning appeals to both sides because it appears to compensate for the vulnerabilities of their command systems, but Blair argued that this policy is at the heart of the problem of accidental nuclear war.

Launch-on-warning entails a rapid shift in priorities measured in seconds. The NORAD Commander must decide whether to prepare for, or prevent, a launch. He must base this judgement on dual phenomenology, that is, a combination of strategic warning indicators (classic intelligence sources), tactical warning indicators (from sensors such as satellite, infrared and ground radar) and confirmation by human operators of the data provided by the sensors. Too much must happen in too short a time for there not to be a high risk of mistake and so dual phenomenology has not eliminated the possibility of error.

Furthermore, those who would have to decide whether or not to retaliate and if so against which target would be under great stress. The few minutes allowed for a decision and the scant information available would not provide a clear picture of the attack. There would be no room for political, moral or even military reasoning, "and in a drill-like atmosphere, the risk of inadvertent war due to false alarm, misperception, or miscalculation can only be heightened." Blair would eliminate the perceived need for the hair trigger by designing and implementing a command system which would survive and could be reconstituted after an attack. Such a system would bolster deterrence more ably than would the ability to fire quickly. While the creation of a survivable command would not be cheap, it is feasible.

Douglas Ross commented on Blair's paper and on his 1984 book, *Strategic Command and Control.* As far as the paper was concerned, he concurred with Blair's emphasis on the trade-off between maintaining negative and positive control and with his major conclusion that the risk of accidental war would be reduced by devising and deploying survivable command systems.

Ross believed, however, that Blair's assertion that the superpowers had emphasized threat at the expense of reassurance was an overstatement. He noted that this assertion contradicted Blair's doubt that the vulnerability of its command system would allow the United States to respond to an attack. The American capacity for "overkill" on a first strike does not guarantee it the capacity for retaliation. In addition to command system considerations, the US "threat" capacity had strategic shortcomings.