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It would seem obvious why the United States performed several decades of nuclear testing but until reading this book, how the testing itself changed American thinking on nuclear weapons may not have been as clear. The dynamic interplay of politics and science brought constant change that ultimately made nuclear testing, at first a normal choice for nuclear security, into an illegitimate option. How each nuclear test series influenced this transformation away from the “normalcy” of testing is the goal of the authors, both of whom are from Australian centers of learning.

Though the research is thorough and the story of the influence nuclear testing had on the political and societal dynamic of the U.S. is compelling, the conclusions presented here are not earth shattering. The value of the book lies partly with the story it tells but also with the perspective it brings from scholars outside the U.S. It is well written by its primary author with hints of influence from the more famous American ex-patriot co-author, Joseph Siracusa.

The story behind twenty test series and their respective families of 317 nuclear shots is clearly elucidated here. The authors explain that for the most part, there were sound technical reasons for each of the shots that were carried forth in a natural progression motivated by science and influenced (not always) by the changing ideas concerning the legitimacy of these weapons. At the start, nuclear weapons held great legitimacy. Testing was politically acceptable and motivated by technical and defense concerns. Tests were categorized and ranged from those broadly defined as “radiation effects shots” such as those conducted at high altitude, to “human effects shots” involving military operations conducted post-explosion in or near the blast area. Nuclear tests were designed that ultimately determined the size of the U.S. arsenal and allowed the military to miniaturize its atomic weapons for tactical battlefield use. Even the nascent space program benefited from nuclear testing. But, perhaps the best example of how nuclear testing changed the thinking behind the very idea of testing is that of radioactive fallout and its effects. Indeed, the Castle Bravo shot which resulted in the radiation exposure of the crew of the Japanese fishing vessel Lucky Dragon, revealed the inadequacy of meteorological prediction and that radiation’s deadly effects could be far flung. The authors peel away the onion of influences and changes to the U.S. test program in a paced, methodical approach. This is a revealing assessment if a bit anticlimactic. However, human history does not set out to entertain. It is not scripted for historians to turn into best sellers. It is what it is.

An excellent job is done organizing the narrative of nuclear test operations by presidential administration. Thus cataloged, the reader can clearly ascertain the influence of the personalities that headed the Atomic Energy Commission and the other interested governmental parties that sought the necessary presidential authorizations to conduct testing. The Truman era shots represent the development stage of nuclear weapons leading from uranium-based implosion devices to fusion mode thermonuclear weapons. Later, the Eisenhower administration saw miniaturization and varied deployment to multiple battlefield and submarine platforms. Finally, the Kennedy administration saw the perfection of
underground nuclear detonations, their
detection and the somewhat haphazard
response to Moscow’s resumption of
testing after the voluntary test morato-
rium of 1958. The result of the Kennedy
era testing was the achievement of the
Limited Test Ban Treaty (LTBT).

The U.S. response to the Soviet
resumption of testing is perhaps, one
of the more fascinating sections of the
book. Here, unlike other sections where
technical issues dominate the motiva-
tions for further nuclear testing, we find
politics and national pride taking center
stage with the result that testing was
carried forth purely to sway world opin-
ion. Sputnik had the world convinced
of Soviet technical superiority. The U.S.
thoroughly shaken by its own space pro-
gram failures, compulsively launched
into a poorly planned, politically moti-
vated testing program largely conduc-
ted to regain its stature. If that thought
puts fear into your heart, then the book
serves yet another useful (and moral)
purpose. Beyond its value as a chronicle
of testing and the subsequent conse-
quences, it announces—rather quietly
as do most scholarly works—that politi-
cal restraint can be easily subsumed by
the fear of existential threat (or minimal-
ly, by damaged national pride). However,
that would be a flawed, narrow view. As

the authors point out, the resumption of
testing in 1961 to 1963 and its simulta-
neity with the Cuban Missile Crisis lead
to a more durable agreement: the LTBT.
And there, by providing such historical
clarity, the book scores a high grade.

Is such an analysis worthy of a
read? Clearly, those interested in the
history of the nuclear testing era will
find valuable information here. Well-
constructed and well-written, the book
will not bore. There is however a tinge of
pedestrianism here. Some of the conclu-
sions will seem obvious. The Truman era
legitimacy of nuclear testing as the new
technology was explored in the face of
the perceived Soviet menace; the Eisen-
hower expansion as the technology ma-
tured and the arms race was on; and the
pull back in the Kennedy era hastened by
environmental concerns, the Cuban Mis-
sile Crisis, and ultimately by international
treaty—all seem to be part of a logical
progression obviating the need for an
in-depth study. But, the authors contend
that illumination was needed and a curi-
ous reader will not be disappointed.

The authors call upon the work of
political scientists Scott D. Sagan (Stan-
ford University) and Nina Tannenwald
(Brown) who both have written on the
manner in which states come to legit-
imize certain behaviors. The “domestic
politics model” of Sagan is, thankfully for
the casual reader, very briefly discussed
in Chapter 4 and lightly applied in sub-
sequent discussions to the behavior of
nuclear testing. Thus, the story about
the evolution in thinking regarding the
defensive need and legitimacy of test-
ing is in no way obscured by this politi-
cal analysis. Instead, the story unfolds
logically and sometimes dramatically as
military men, politicians, scientists and
anti-testing forces tried to sway the na-
tion’s nuclear testing future.

In 230 pages, the authors have
scripted a concise, neatly written and
well referenced story (the book is ref-
erenced by chapter and supplemented
with a seven-page bibliography and ten-
page index). Lest you think that road
they traveled is too narrow or uninter-
esting consider that they skillfully and
accurately framed their narrative with a
reference to nuclear weapons develop-
ment ascribed to Lewis Strauss, chair
of the Atomic Energy Commission: He
called it “this awesome field.” Indeed it
is. Perhaps it is too big for most of us
to fully grasp in a professional lifetime.
This book is a very good starting point
for those brave, scholarly, and ambitious
enough to try.