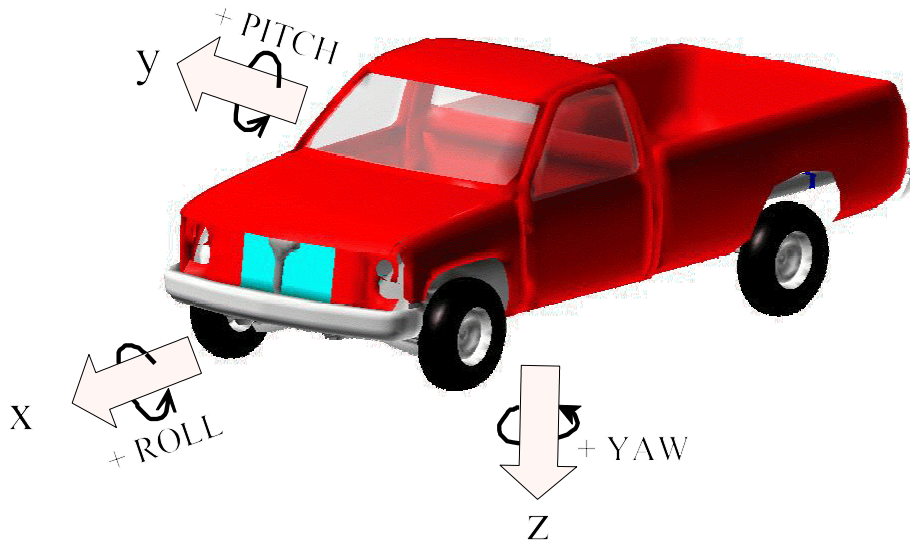


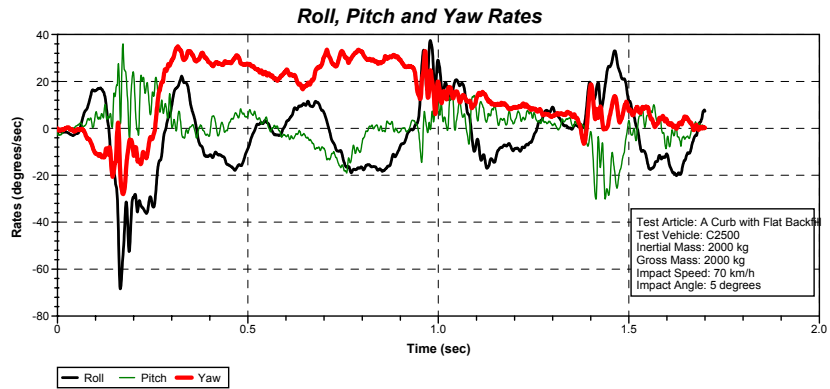
## APPENDIX E

### Angular Displacement Rate-Time Histories Computed at the Center of Gravity of Vehicle

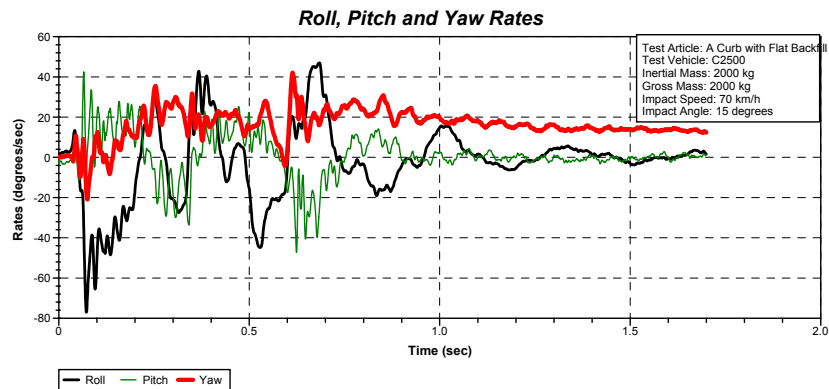
-Finite Element Analysis Results-



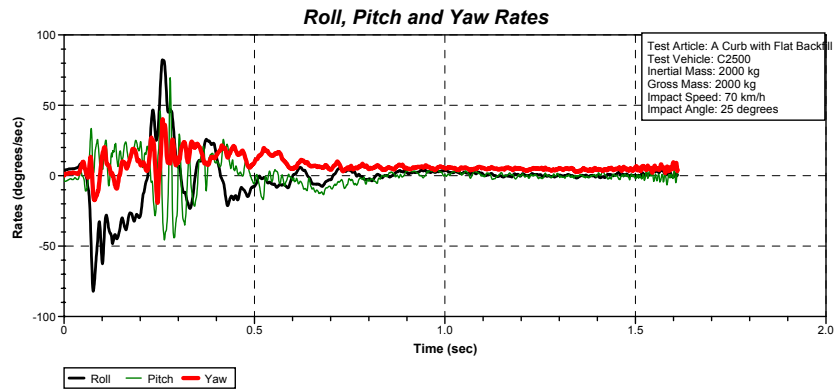
Vehicle fixed coordinate reference system.



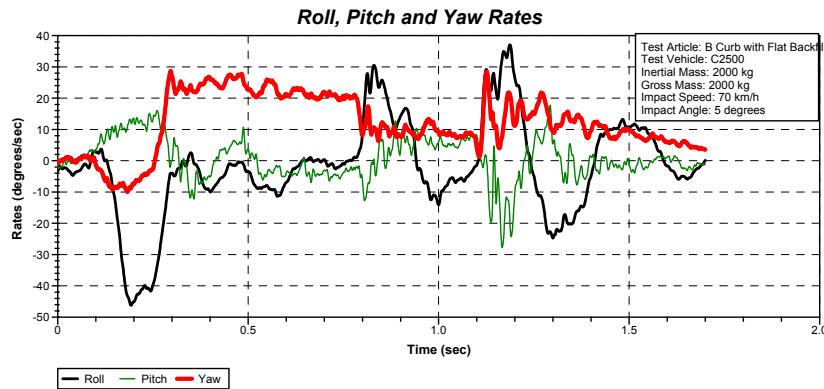
**Figure E.1:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO A Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 5 degrees.



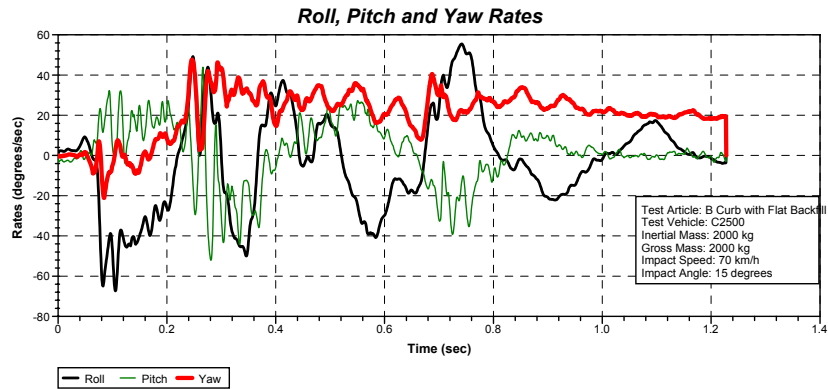
**Figure E.2:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO A Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 15 degrees.



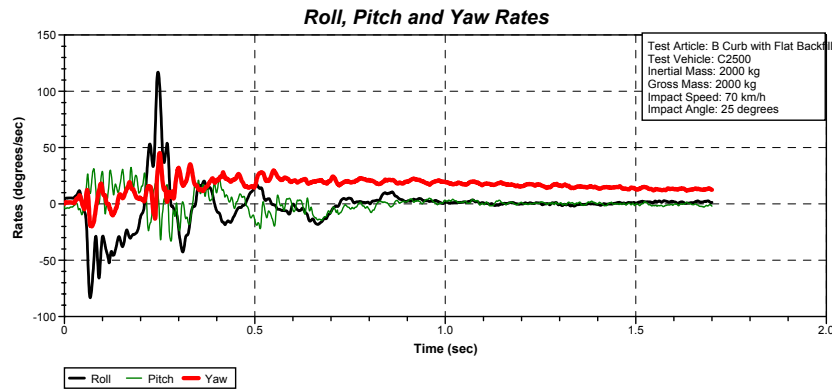
**Figure E.3:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO A Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 25 degrees.



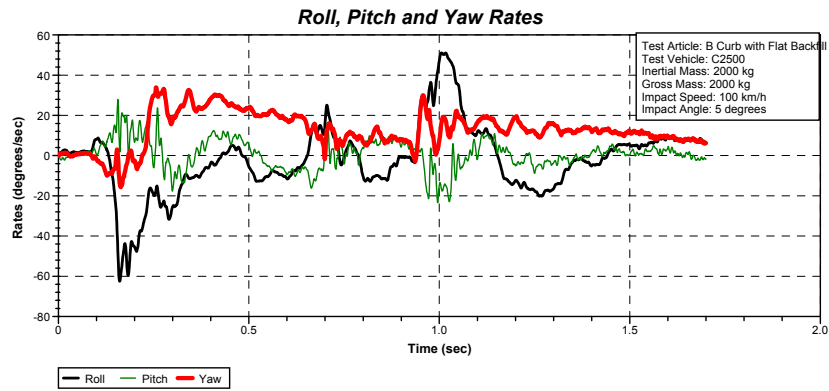
**Figure E.4:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO B Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 5 degrees.



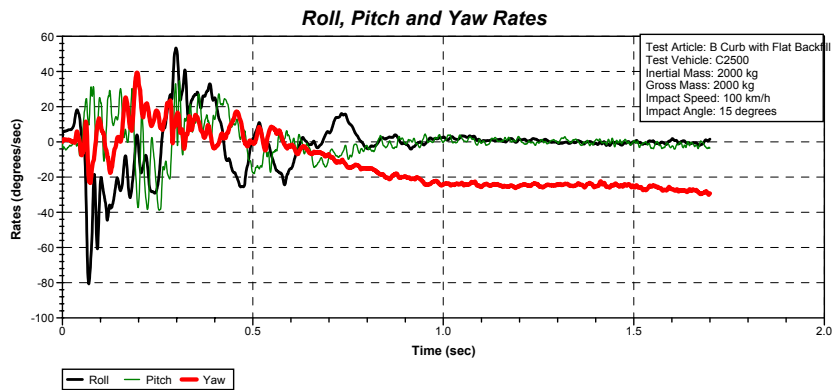
**Figure E.5:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO B Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 15 degrees.



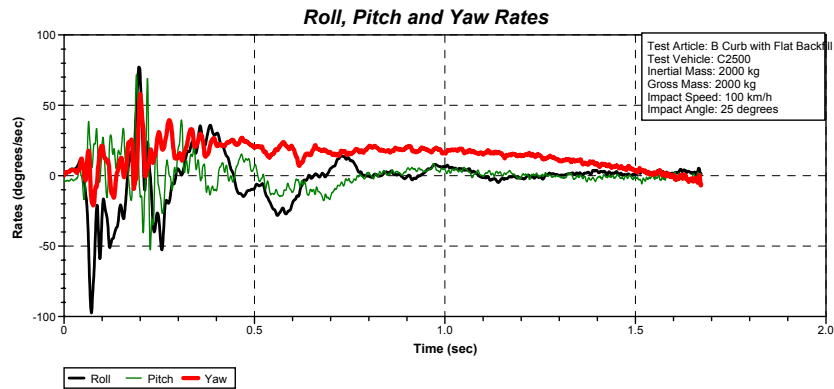
**Figure E.6:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO B Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 25 degrees.



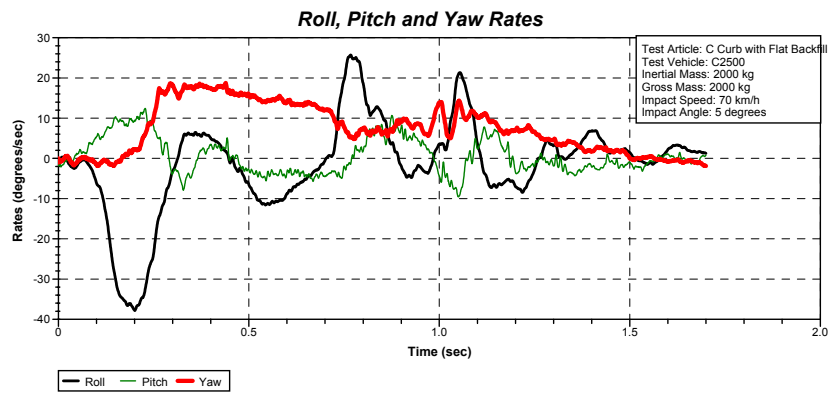
**Figure E.7:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO B Curb  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 5 degrees.



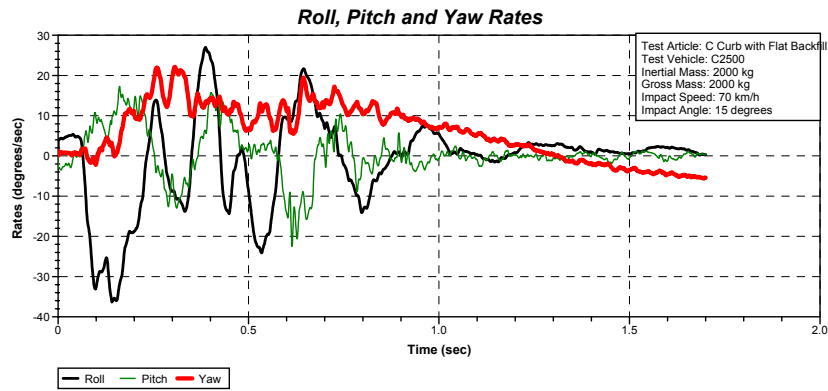
**Figure E.8:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO B Curb  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 15 degrees.



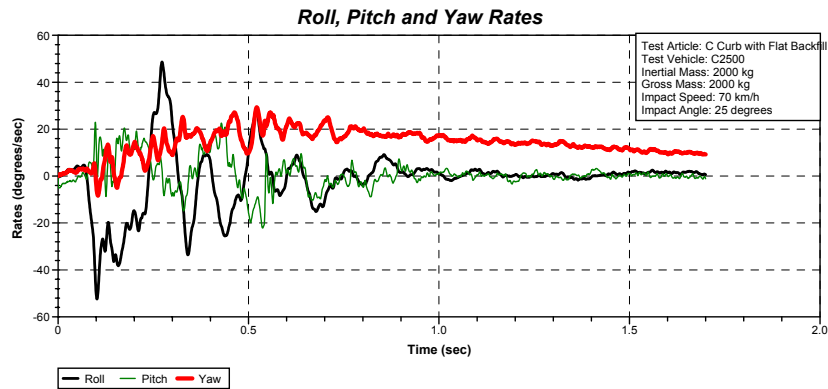
**Figure E.9:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO B Curb  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 25 degrees.



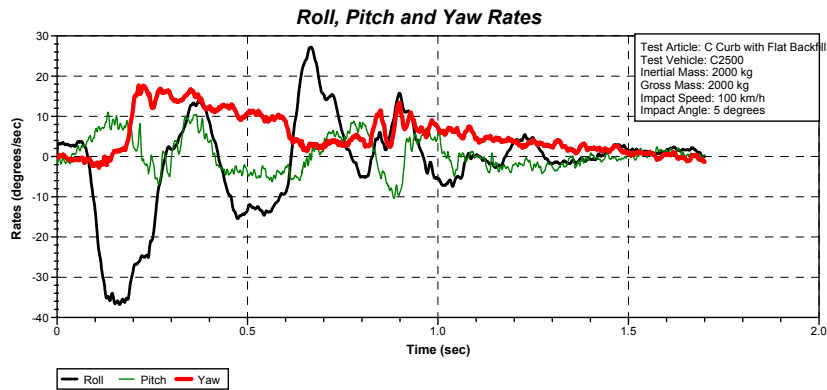
**Figure E.10:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO C Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 5 degrees.



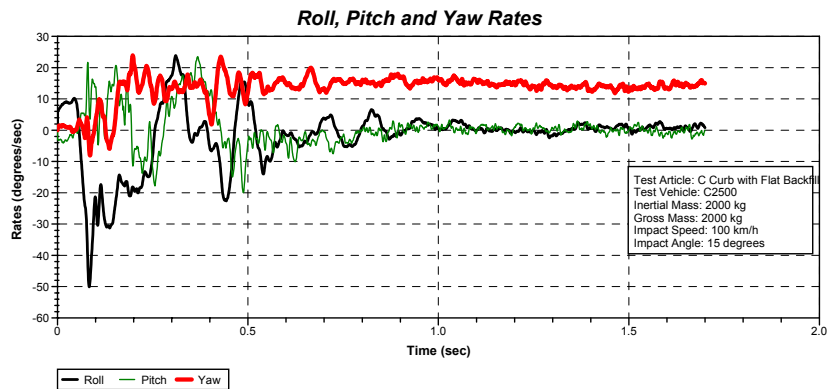
**Figure E.11:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO C Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 15 degrees.



**Figure E.12:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO C Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 25 degrees.

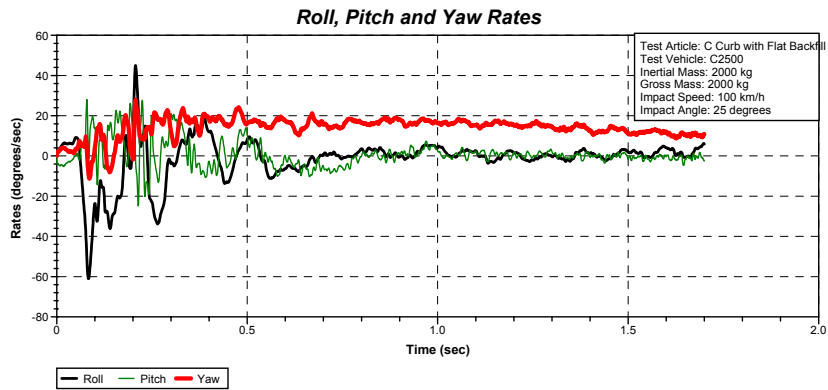


**Figure E.13:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO C Curb  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 5 degrees.

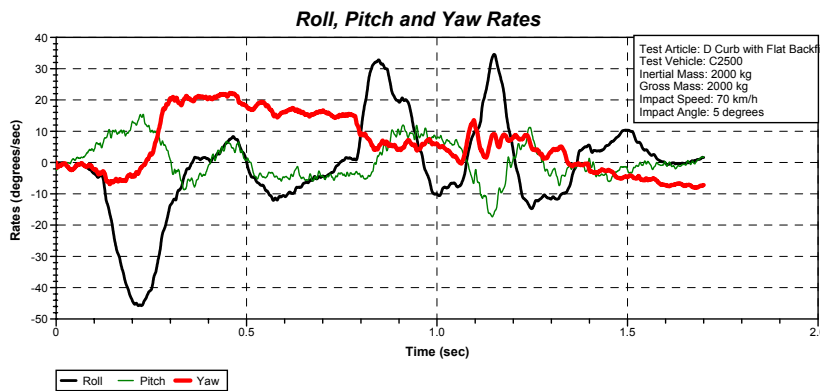


**Figure E.14:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO C Curb  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 15 degrees.

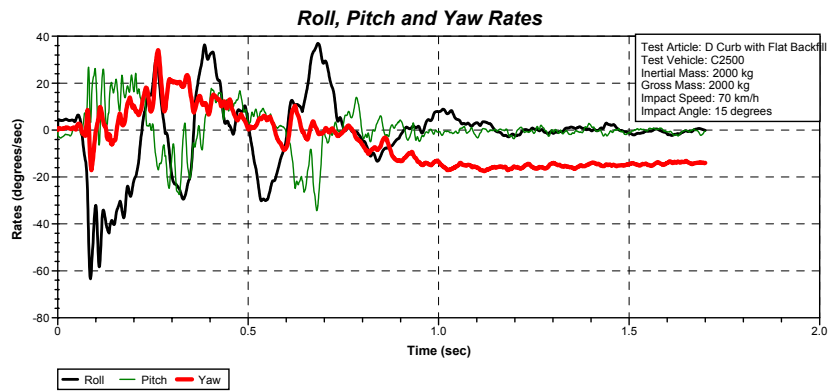




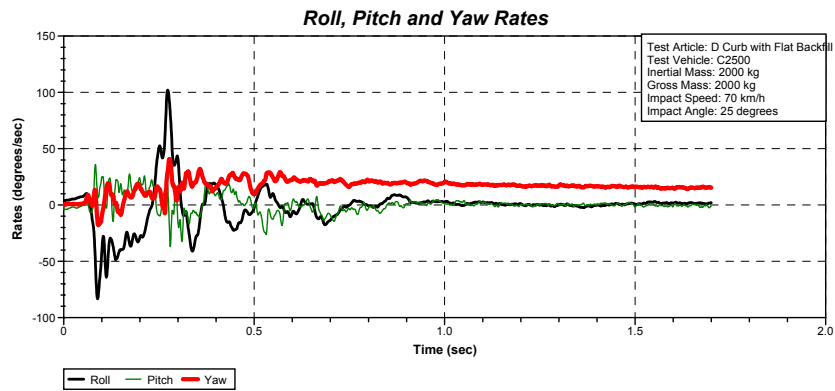
**Figure E.15:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO C Curb  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 25 degrees.



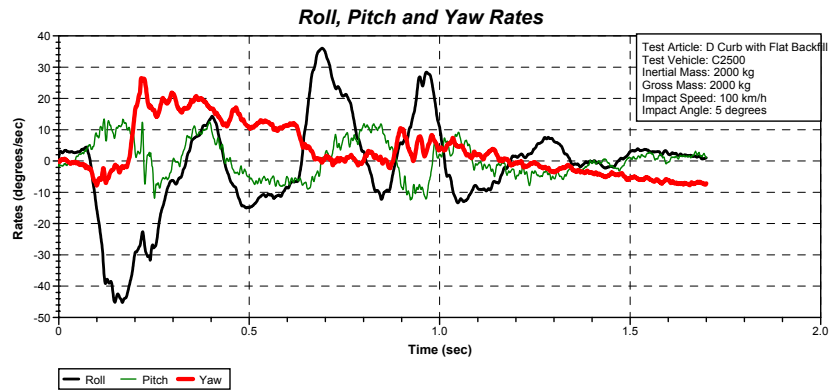
**Figure E.16:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO D Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 5 degrees.



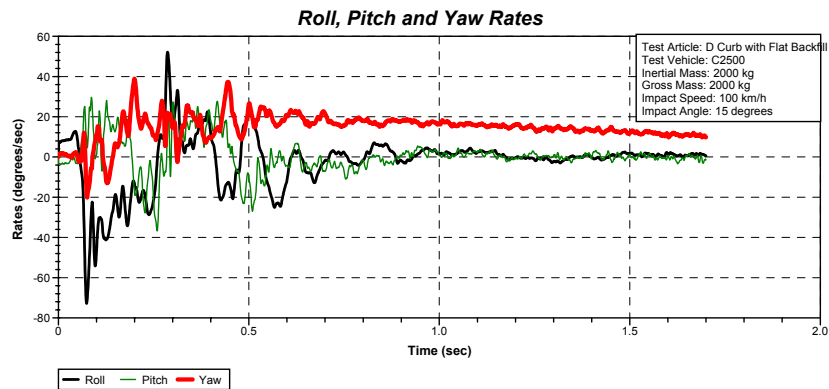
**Figure E.17:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO D Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 15 degrees.



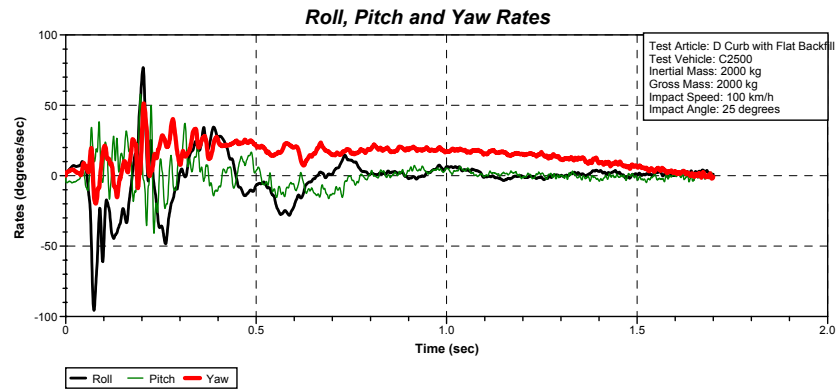
**Figure E.18:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO D Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 25 degrees.



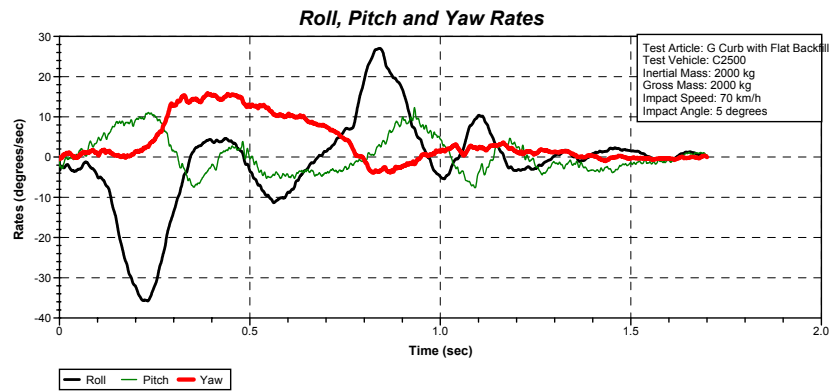
**Figure E.19:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO D Curb  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 5 degrees.



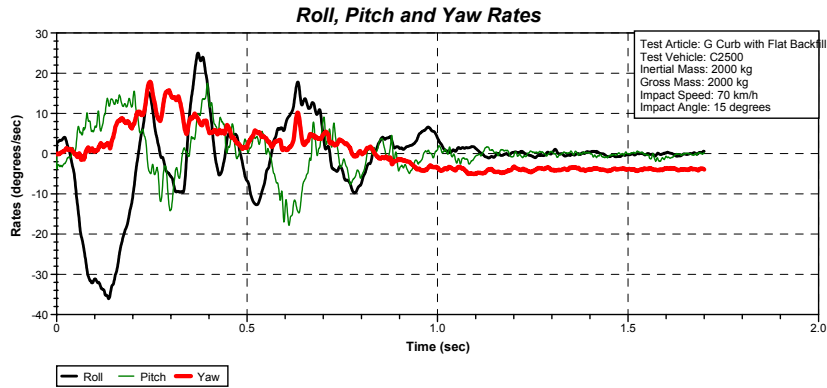
**Figure E.20:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO D Curb  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 15 degrees.



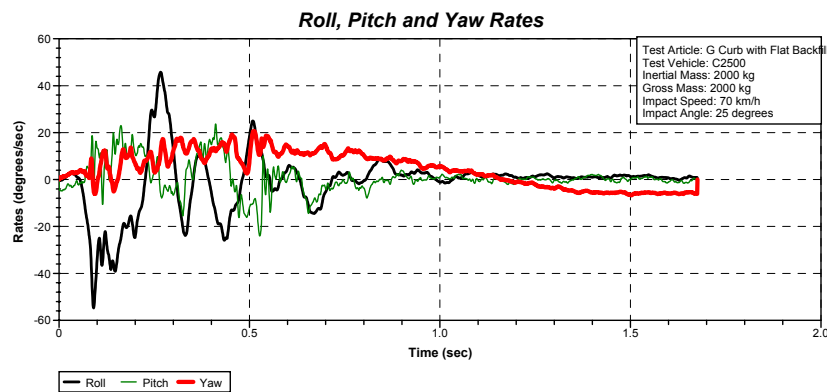
**Figure E.21:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO D Curb  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 25 degrees.



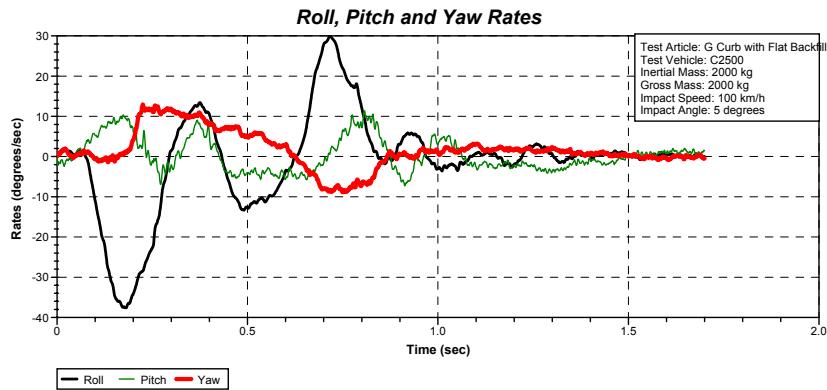
**Figure E.22:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO G Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 5 degrees.



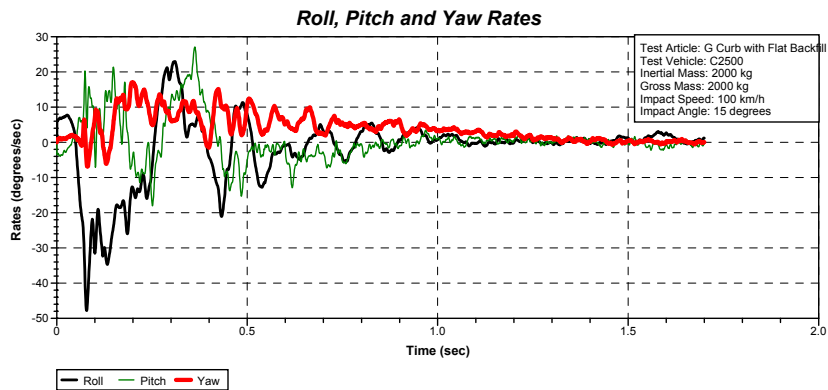
**Figure E.23:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO G Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 15 degrees.



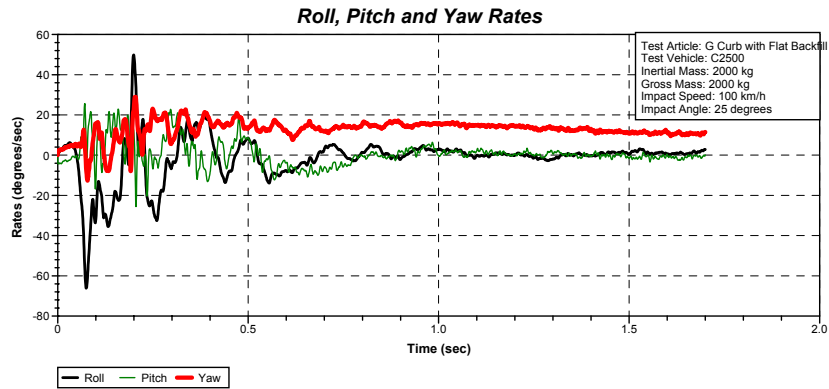
**Figure E.24:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO G Curb  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 25 degrees.



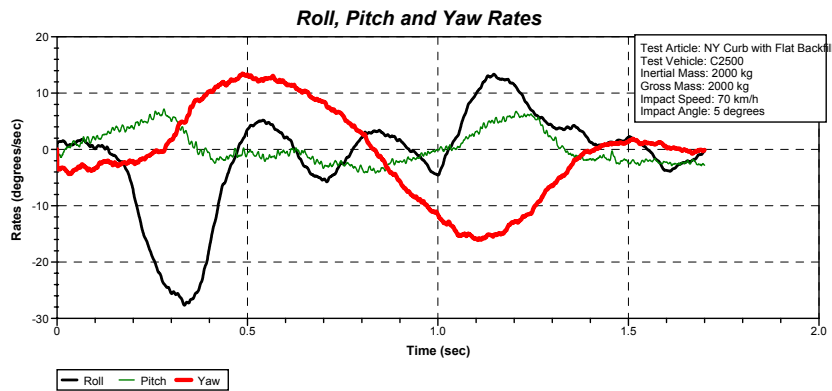
**Figure E.25:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO G Curb  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 5 degrees.



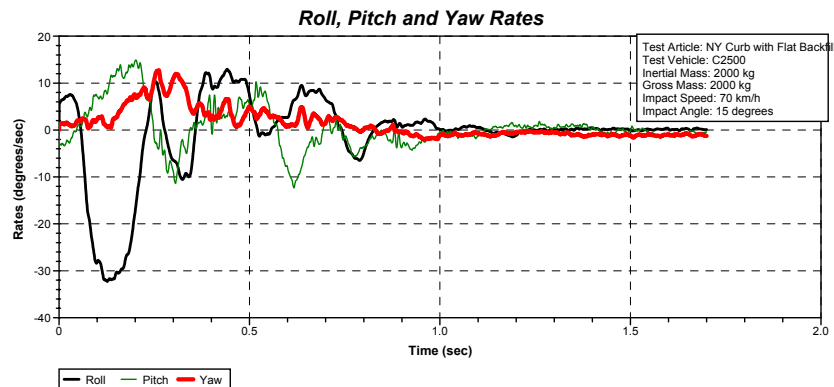
**Figure E.26:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO G Curb  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 15 degrees.



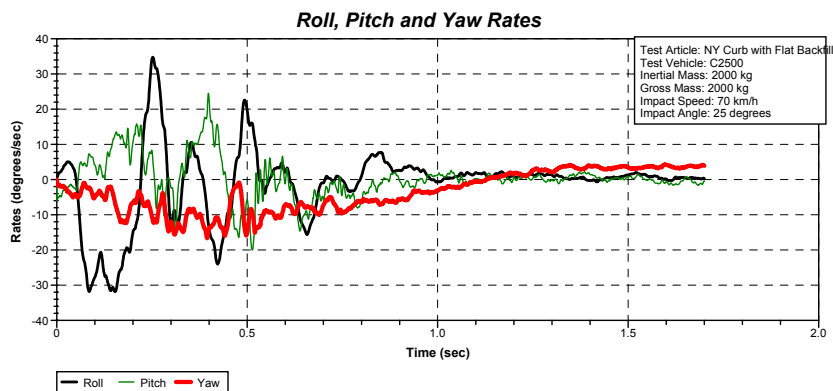
**Figure E.27:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- AASHTO G Curb  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 25 degrees.



**Figure E.28:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- New York Curb (100 mm)  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 5 degrees.

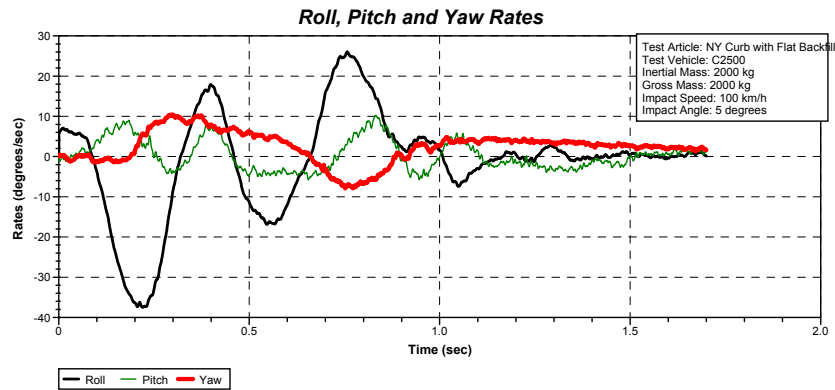


**Figure E.29:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- New York Curb (100 mm)  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 15 degrees.

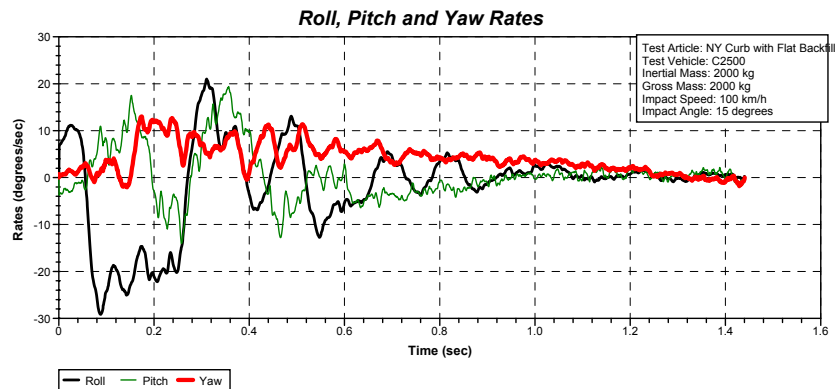


**Figure E.30:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- New York Curb (100 mm)  
**Impact Speed** -- 70 km/hr  
**Impact Angle** -- 25 degrees.

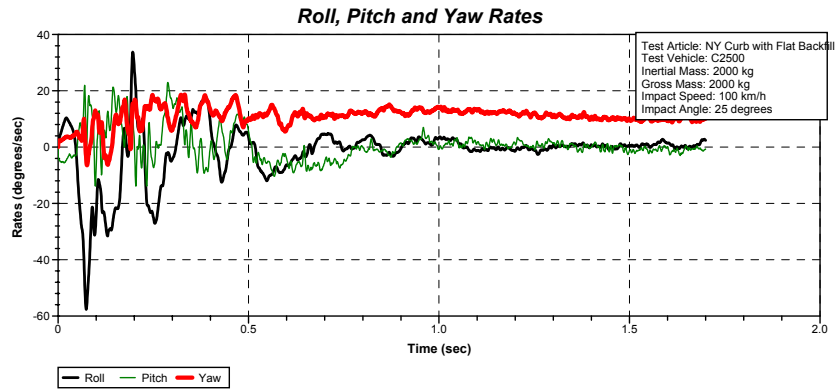




**Figure E.31:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- New York Curb (100 mm)  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 5 degrees.



**Figure E.32:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- New York Curb (100 mm)  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 15 degrees.



**Figure E.33:** Angular displacement rate-time histories at C.G. of pickup truck in local coordinates:  
**Curb Type** -- New York Curb (100 mm)  
**Impact Speed** -- 100 km/hr  
**Impact Angle** -- 25 degrees.