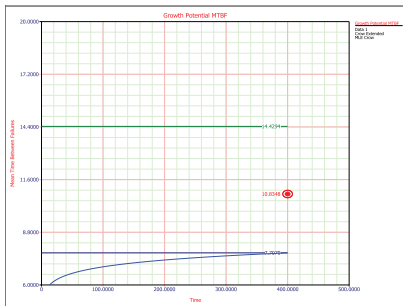
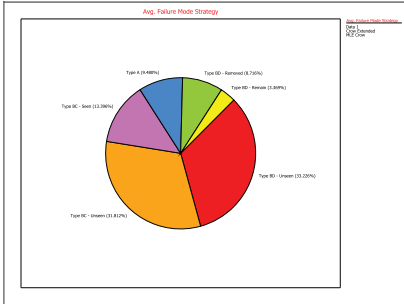


RGA

Reliability Growth and Repairable System Analysis



ReliaSoft's RGA software was developed in cooperation with Dr. Larry Crow, the leading authority in the field of reliability growth analysis, as well as key development partners in government and industry.

RGA provides all the tools you need to plan your reliability growth strategy and analyze data from developmental tests.

The software also applies reliability growth models for fielded repairable system analysis, which provides optimum overhaul times and

other results without the detailed data sets that normally would be required.

ReliaSoft RGA 7.0.1

Project Explorer: Project1, Standard Plots, Vehicle Test Data, Additional Plots, MultiPhase Plot, Growth Planning, Vehicle Plan, Mission Profile, Other Tools, Reports, Attachments, Discussion.doc

Planning Model: Planning Model, Growth Extended

Number of Phases: 6

Planning Information: Input: Goal MTBF: 300,000, GP Design Margin: 1.3000, Avg. EF: 0.7000, Mgmt. Strategy: 0.9500, Discovery Beta: 0.7100

Calculation Options: Inital MTBF, GP Design Margin, Goal MTBF

Required Input: Goal MTBF: 300, GP Design Margin: 1.3, Avg. EF: 0.7, Management Strategy: 0.95, Discovery Beta: 0.71

Results: Inital Time T(0): 72.7696, Inital MTBF: 130.6500, Final MTBF (Act): 300.7271, T Goal (Act): 5.8051E+04

Follo: Vehicle Test Data:

MP-T	Event	Time to Event	Classification	Mode
1	F	110	A	1
2	F	224	BD	5004
3	F	333	A	8
4	F	555	BD	5001
5	F	645	BC	100
6	F	700	A	8
7	F	789	A	1
8	AP	1000		
9	F	1050	BD	5002
10	F	1248	BD	5003
11	F	1261	BD	5002
12	F	1692	BD	5008
13	F	1880	BD	5004
14	I	1900	BD	5002
15	AP	2000		
16	F	2015	A	2

Follo: Repairable System Analysis

Systems Information: System 1 (1268), System 2 (1421), System 3 (1300), System 4 (1593), System 5 (1415), System 6 (1290), System 7 (1415), System 8 (1290), System 9 (1556)

Time to Event: 0, 1268, 68, 1137, 1167

Results: General: 1.0592, 0.0005; Passed: 11/11; Items: 11/11; System 1: 0.9622, 0.0031; Failed: No Trend

System Operation: Graph showing MTBF over time for various systems.



<http://RGA.ReliaSoft.com>

MOST COMPREHENSIVE AND ADVANCED RGA SOFTWARE AVAILABLE

ReliaSoft's **RGA** is an application-oriented software package with all of the major reliability growth models, plus advanced analysis methods that are not available anywhere else.

Traditional Reliability Growth Analysis and Results

RGA supports all of the traditional reliability growth analysis models:

- Crow-AMSAA (NHPP)
- Duane
- Standard and Modified Gompertz
- Lloyd-Lipow
- Logistic

The software provides options for time-to-failure (continuous), discrete (success/failure) and reliability data from a variety of types of developmental reliability growth tests. The available model(s) depend on the type of data.

Reliability Growth Projections, Planning and Management

Available only in **RGA**, the software supports several innovative approaches that expand upon traditional reliability growth methods in ways that better represent real-world testing practices and practical applications.

- The **Crow Extended** model allows you to classify failure modes based on whether and when they will be fixed. This analysis allows you to make reliability growth projections and evaluate the reliability growth management strategy.
- The **Growth Planning Folio** helps you to create a multi-phase reliability growth testing plan. In addition, you can use the **Crow Extended – Continuous Evaluation** model to analyze data from multiple test phases and create a **Multi-Phase Plot** to compare your test results against the plan. This analysis will help to determine if it is necessary to make adjustments in subsequent test phases in order to meet your reliability goals.
- The **Mission Profile Folio** helps you to create a balanced operational test plan and track the actual testing against the plan to make sure the data will be suitable for reliability growth analysis.

Make the Most of a Limited Data Set for Fielded Repairable System Analysis

RGA also provides opportunities for fielded repairable system analysis. This includes a new Design of Reliability Tests (DRT) utility for repairable systems (based on the non-homogeneous Poisson process) and data sheets that have been specially designed for the analysis of fielded system data. Depending on the characteristics of your data set, you may be able to:

- Analyze the failure times for fielded repairable systems in order to understand the reliability over time and calculate metrics of interest (such as optimum overhaul time or expected number of failures) without the detailed data sets that would normally be required.
- Evaluate the reliability improvement that you can expect from rolling out fixes for a fleet of units operating in the field.
- Use grouped (interval) data analysis to evaluate fleet warranty data in order to estimate future returns.

Reasons to Upgrade to RGA 7

Version 7 offers a completely updated user interface and many useful new features, including:

- Reliability growth planning and analysis across multiple test phases
- Operational mission profiles
- Design of Reliability Tests for repairable systems
- Monte Carlo data generation and SimuMatic®

Platform

Windows XP or Vista.

Integration

Weibull++ and XFRACAS.

Support

ReliaSoft's unparalleled after-sale support includes free telephone, fax or e-mail support. Minor version updates are also included.