ARIMA(2,1,1) Simulation

In [ ]:
```
# parameters
phi=c(.7, .2)
beta=0.5
sigma=3
m=10000
```

In [ ]:
```
set.seed(5)
(Simulated.Arima=arima.sim(n=m,list(order = c(2,1,1), ar = phi, ma=beta)))
```

In [ ]:
```
plot(Simulated.Arima, ylab=' ',main='Simulated time series from ARIMA(2,1,1)
```

In [ ]:
```
acf(Simulated.Arima)
```

In [ ]:
```
Diff.Simulated.Arima=diff(Simulated.Arima)
```

In [ ]:
```
plot(Diff.Simulated.Arima)
```

In [ ]:
```
acf(Diff.Simulated.Arima)
```

In [ ]:
```
pacf(Diff.Simulated.Arima)
```

In [ ]:
```
library(astsa)
sarima(Simulated.Arima,2,1,1,0,0,0) # astsa not installed
```

In [ ]:
```
library(forecast)
auto.arima(Simulated.Arima) # forecast not installed
```

In [ ]:
```
fit1<-arima(Diff.Simulated.Arima, order=c(4,0,0))
```

In [ ]:
```
fit1
```

In [ ]:
```
fit2<-arima(Diff.Simulated.Arima, order=c(2,0,1))
```

In [ ]:
```
fit2
```

In [ ]:
```
fit3<-arima(Simulated.Arima, order=c(2,1,1))
```

In [ ]:
```
fit3
```

In [ ]:
```

```