Fig.1.6.2(a) Case I , DTRC4842I , With Hub , Devised Wake
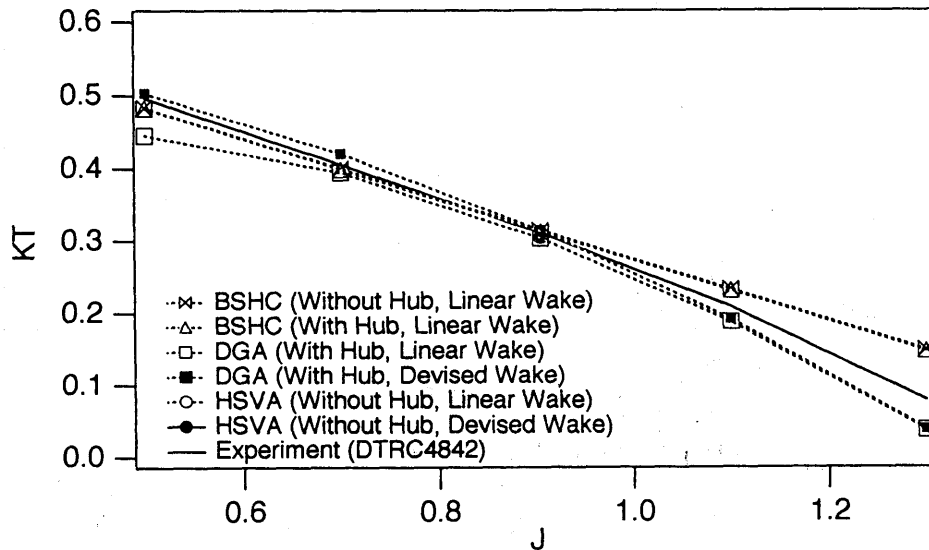KT Without Viscous Correction

Fig.1.6.2(b) Case I , DTRC4842I , With Hub , Devised Wake
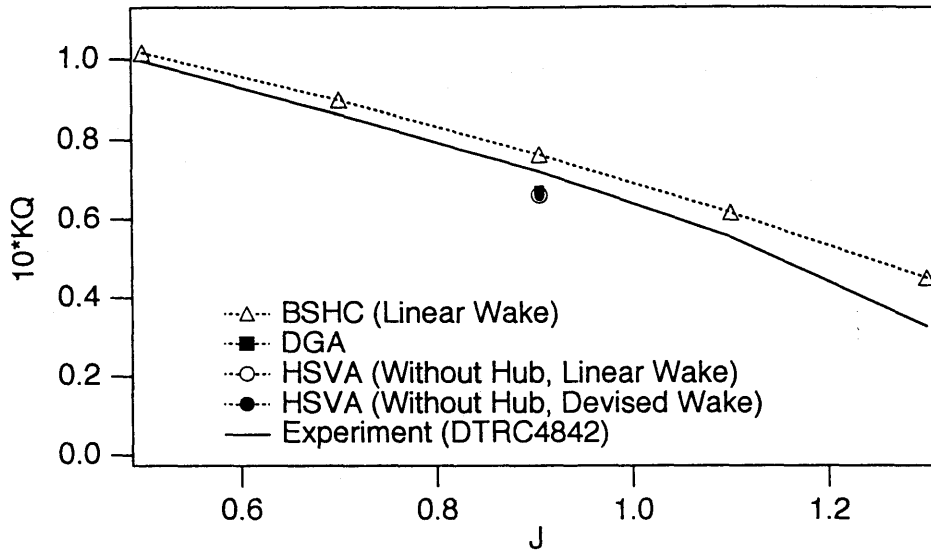KT With Viscous Correction

Fig.1.6.2(c) Case I , DTRC4842I , With Hub , Devised Wake
KQ Without Viscous Correction
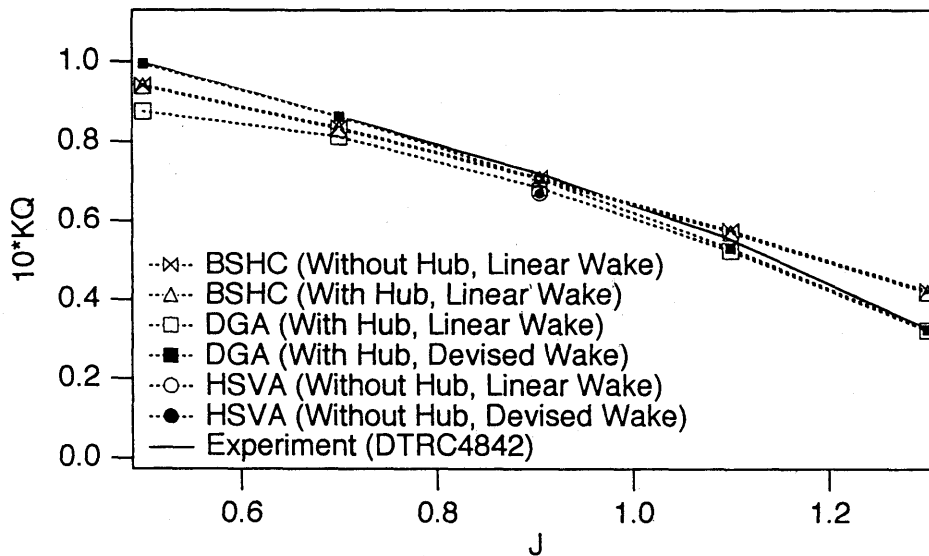

Fig.1.6.2 (d) Case I , DTRC4842I , With Hub , Devised Wake
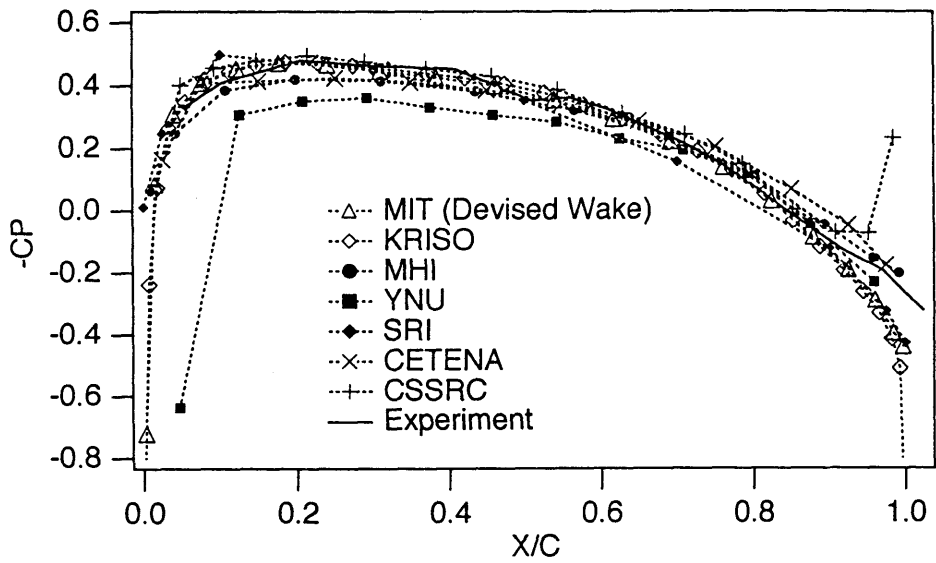KQ With Viscous Correction

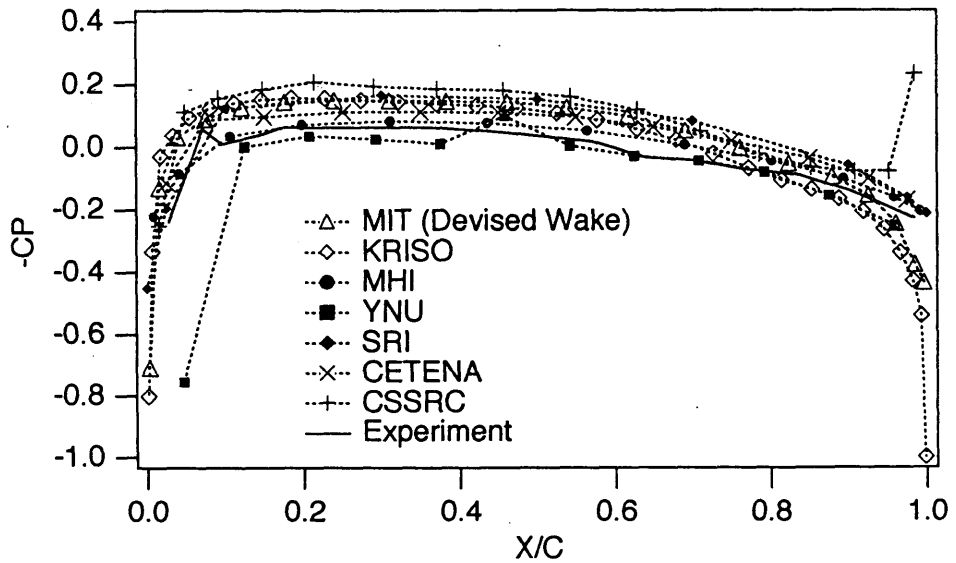Fig.2.1.1(a) CP for Case A (DTRC4119 , J=0.833 , Without Hub , Linear Wake)
on 0.3R Back

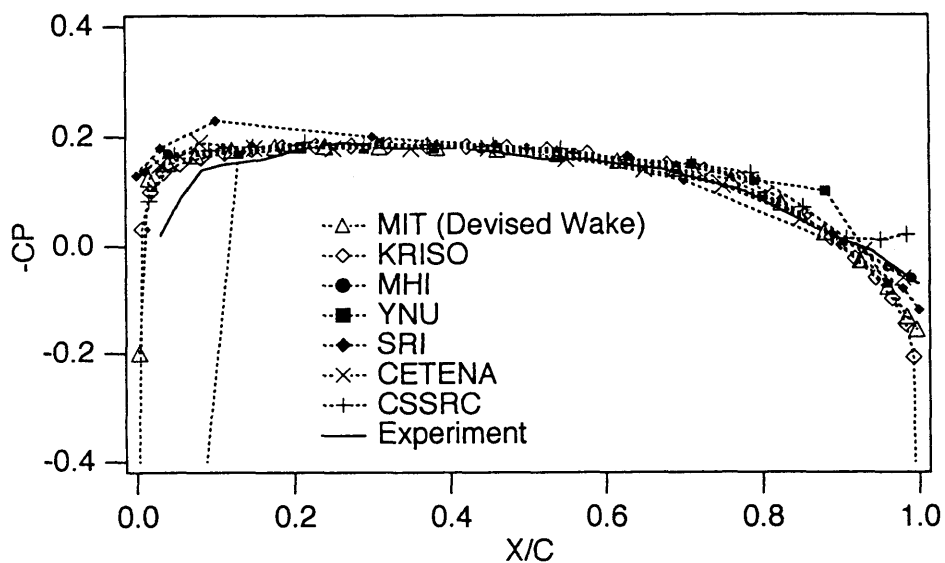Fig.2.1.1(d) CP for Case A (DTRC4119 , J=0.833 , Without Hub , Linear Wake)
on 0.3R Face

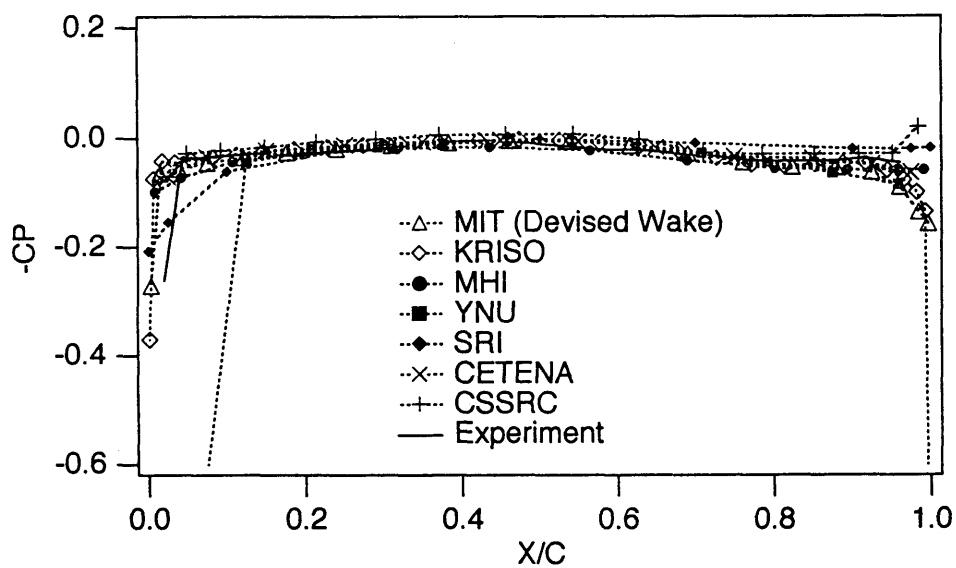Fig.2.1.1(b) CP for Case A (DTRC4119 , J=0.833 , Without Hub , Linear Wake)
on 0.7R Back

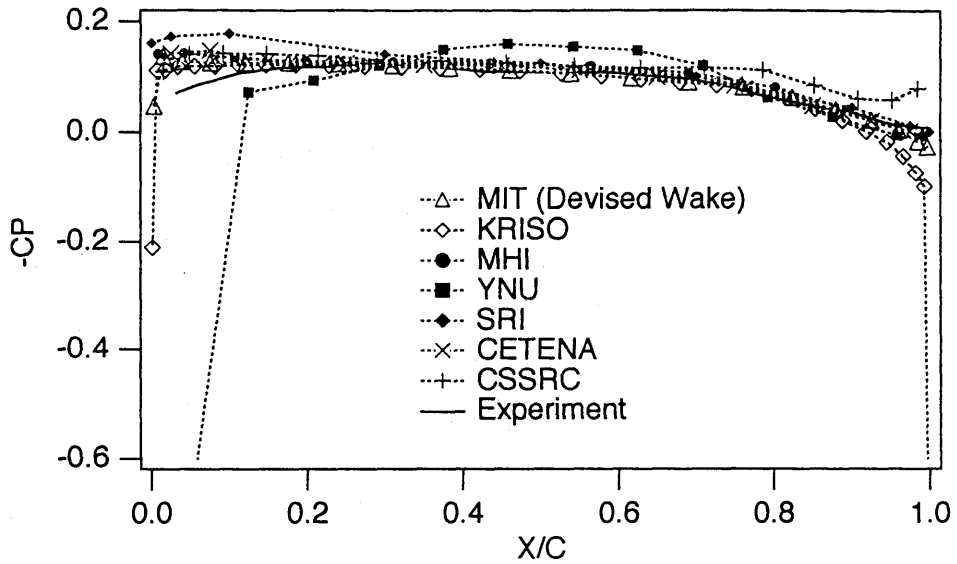Fig.2.1.1(e) CP for Case A (DTRC4119 , J=0.833 , Without Hub , Linear Wake)
on 0.7R Face

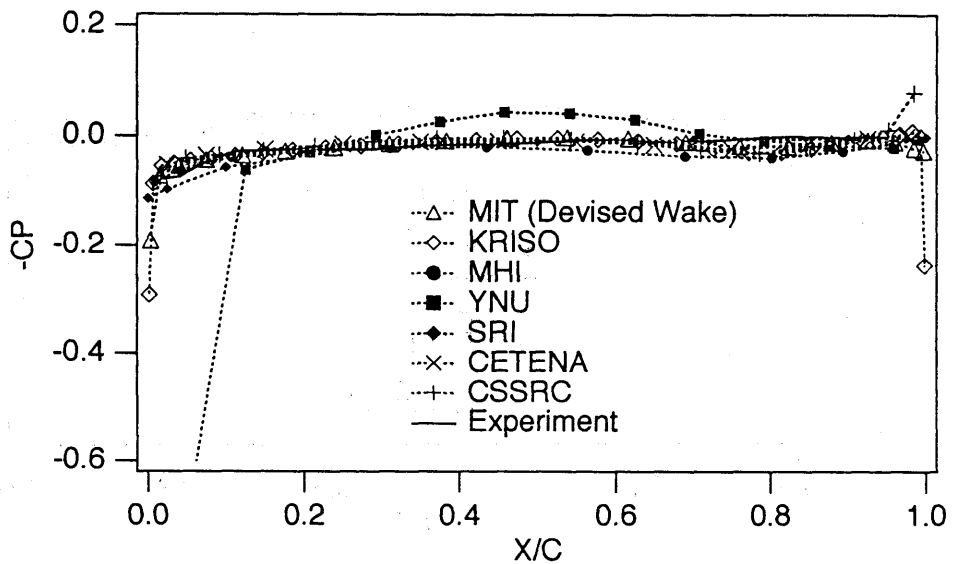Fig.2.1.1(c) CP for Case A (DTRC4119 , J=0.833 , Without Hub , Linear Wake)
on 0.9R Back

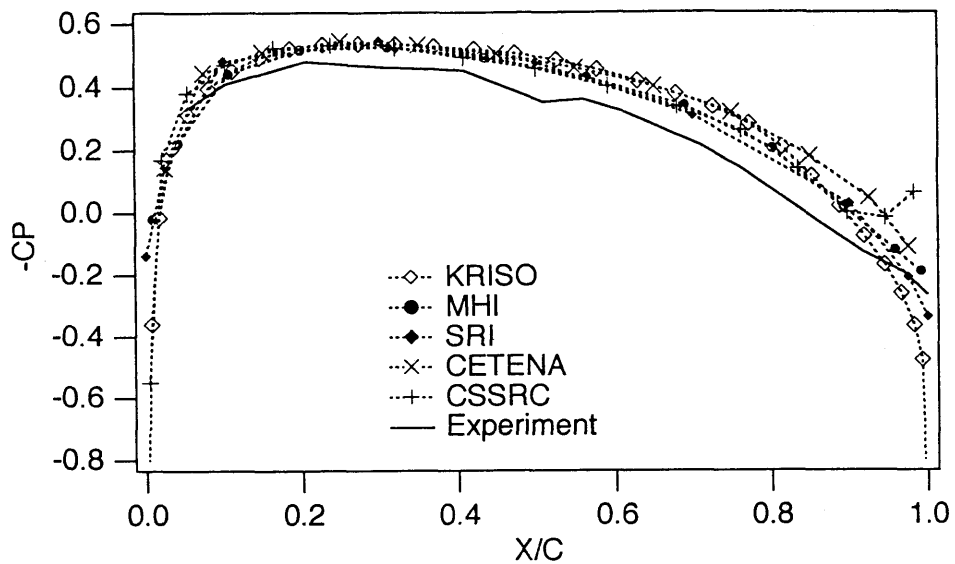Fig.2.1.1(f) CP for Case A (DTRC4119 , J=0.833 , Without Hub , Linear Wake)
on 0.9R Face

Fig.2.2.1(a) CP for Case C (DTRC4119, J=0.833, With Hub, Linear Wake)
on 0.3R Back

Fig.2.2.1(d) CP for Case C (DTRC4119, J=0.833, With Hub, Linear Wake)
on 0.3R Face

Fig.2.2.1(b) CP for Case C (DTRC4119, J=0.833, With Hub, Linear Wake)
on 0.7R Back
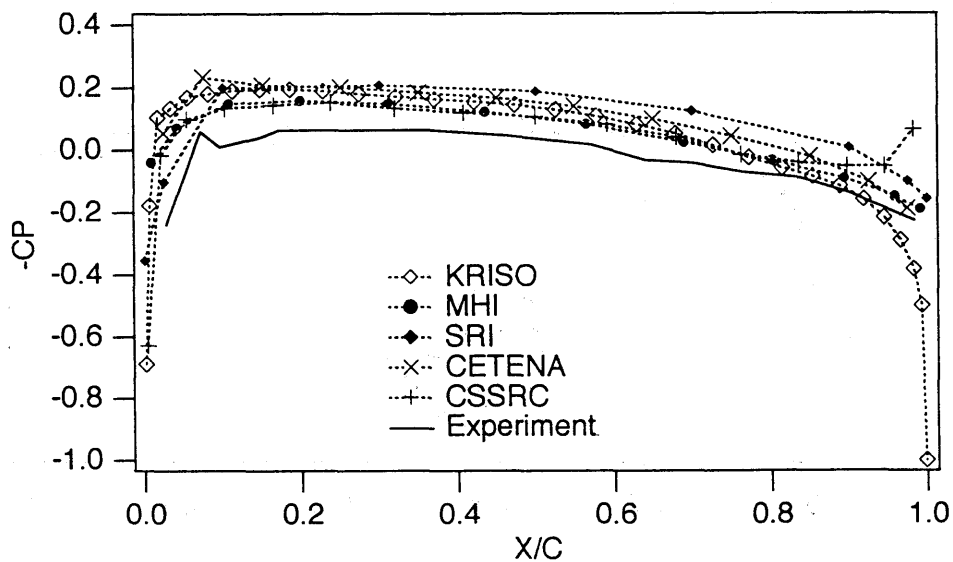

Fig.2.2.1(e) CP for Case C (DTRC4119, J=0.833, With Hub, Linear Wake)
on 0.7R Face
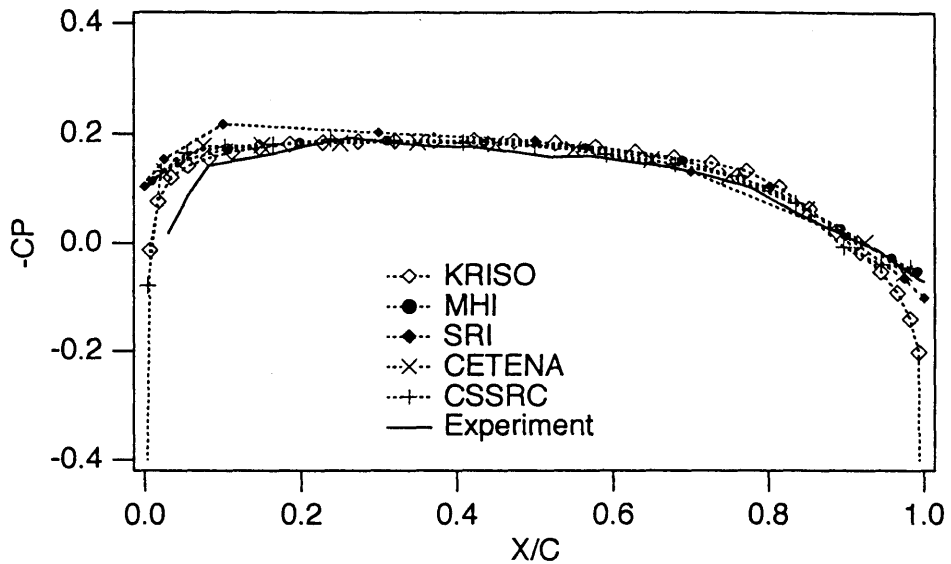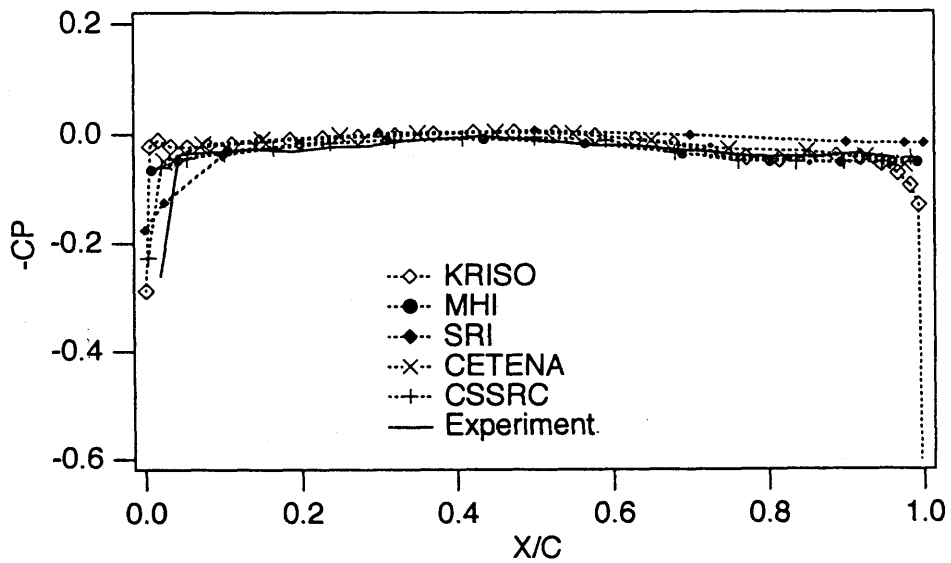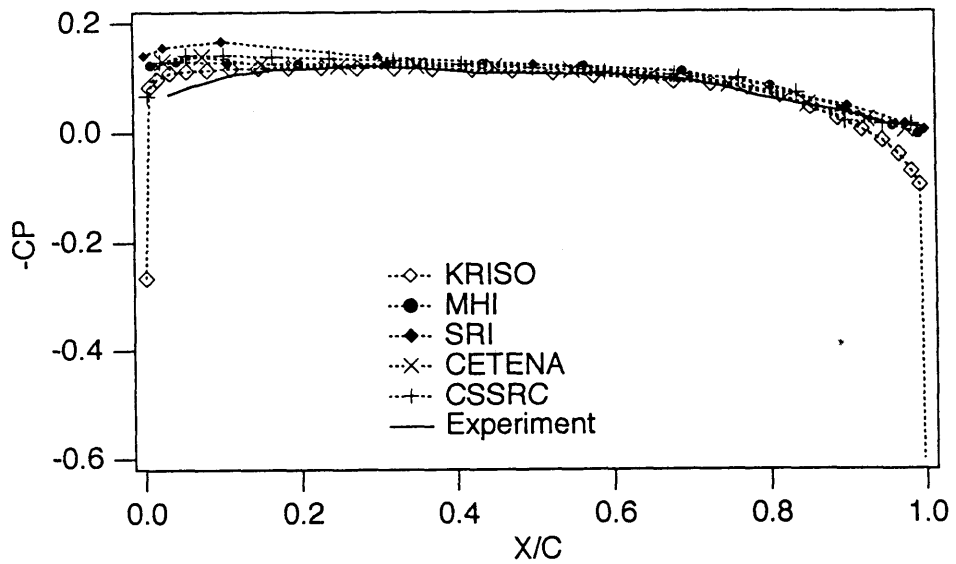
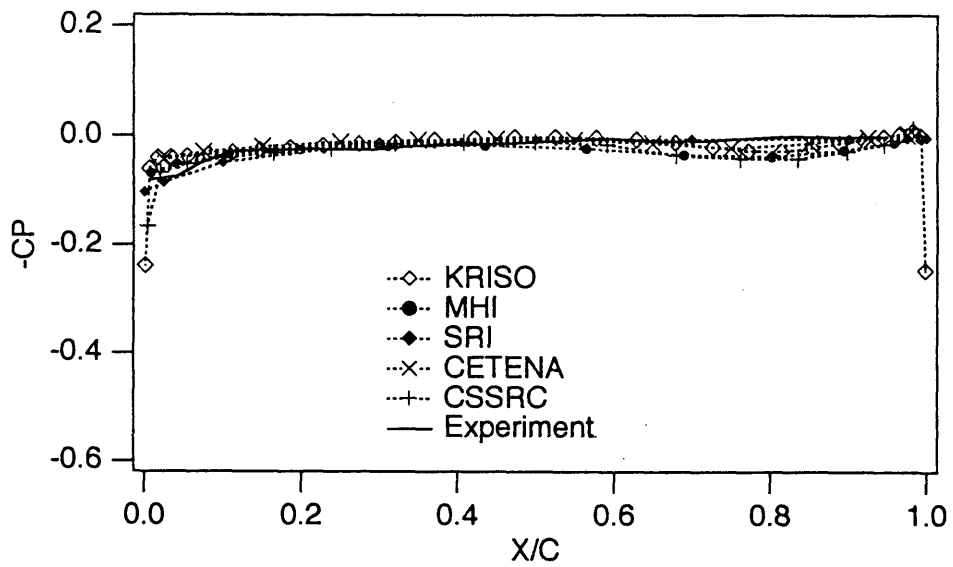Fig.2.2.1(c) CP for Case C (DTRC4119, J=0.833, With Hub, Linear Wake)
on 0.9R Back

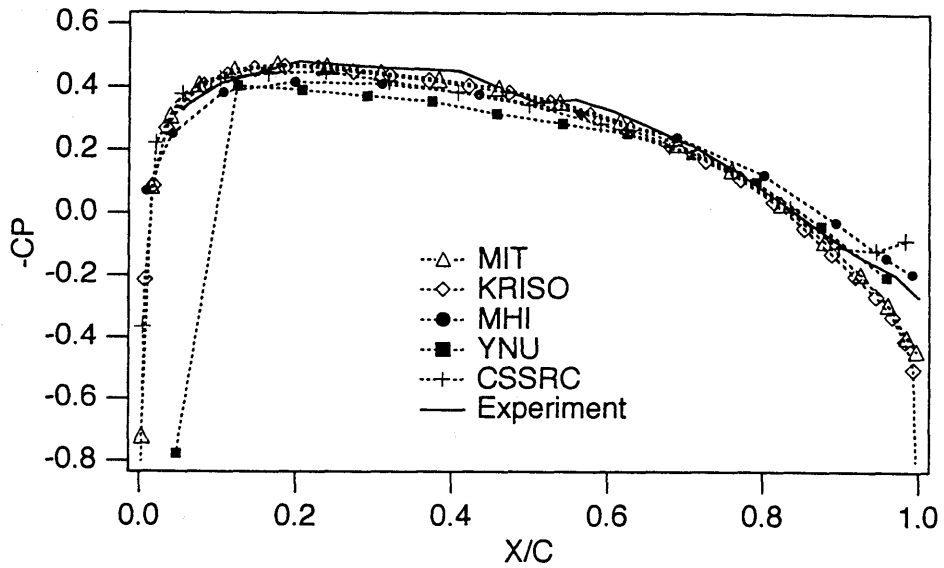Fig.2.2.1(f) CP for Case C (DTRC4119, J=0.833, With Hub, Linear Wake)
on 0.9R Face

Fig.2.3.1(a) CP for Case D (DTRC4119, J=0.833, Without Hub, Devised Wake)
on 0.3R Back

Fig.2.3.1(d) CP for Case D (DTRC4119, J=0.833, Without Hub, Devised Wake)
on 0.3R Face

Fig.2.3.1(b) CP for Case D (DTRC4119, J=0.833, Without Hub, Devised Wake) on 0.7R Back
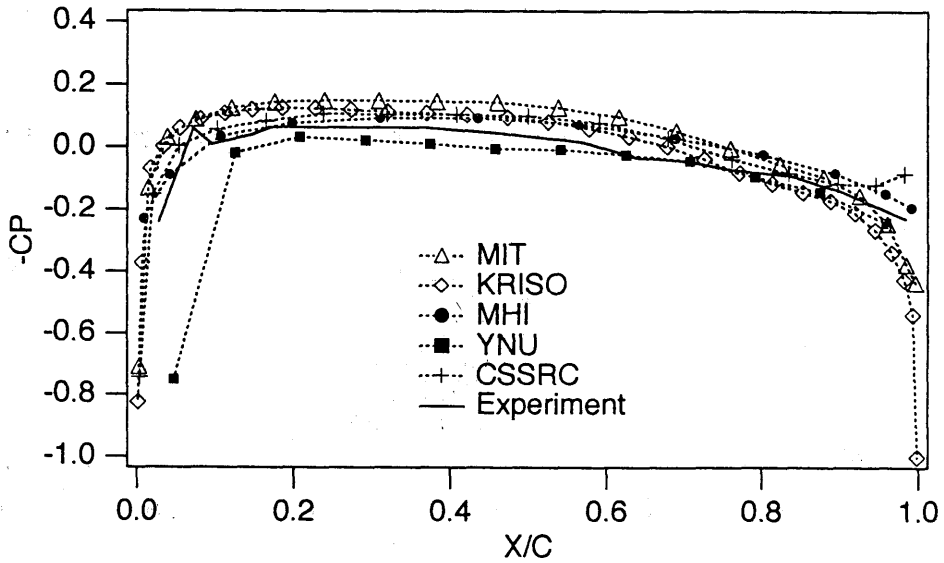

Fig.2.3.1(e) CP for Case D (DTRC4119, J=0.833, Without Hub, Devised Wake) on 0.7R Face
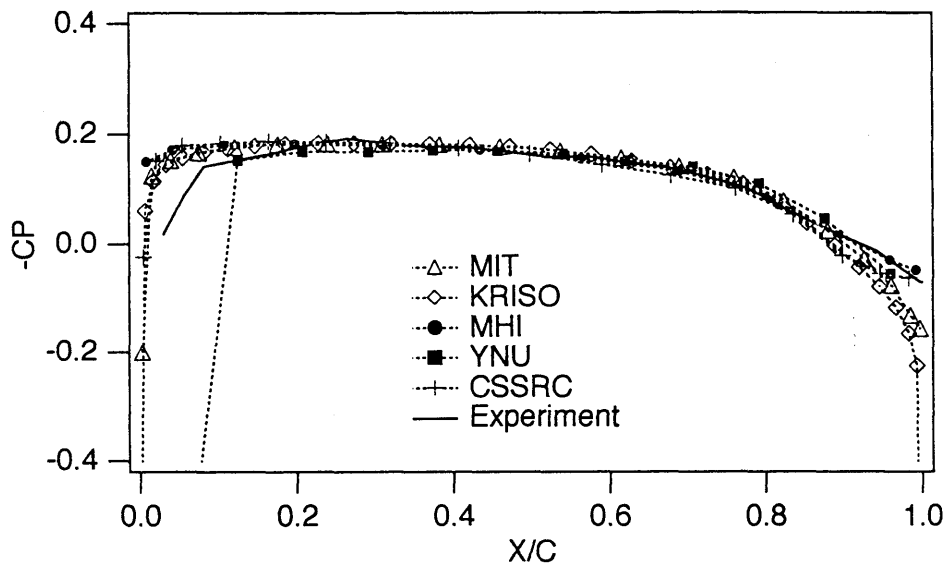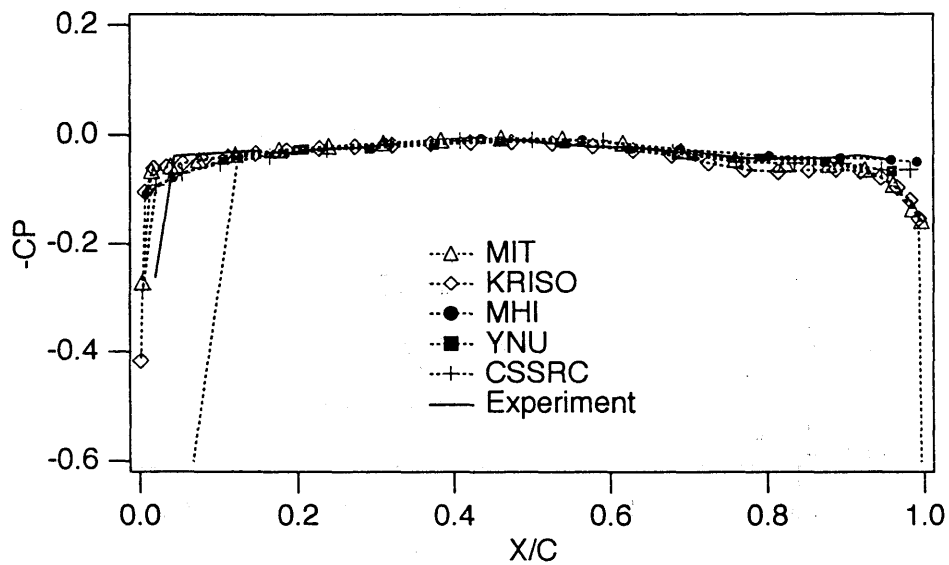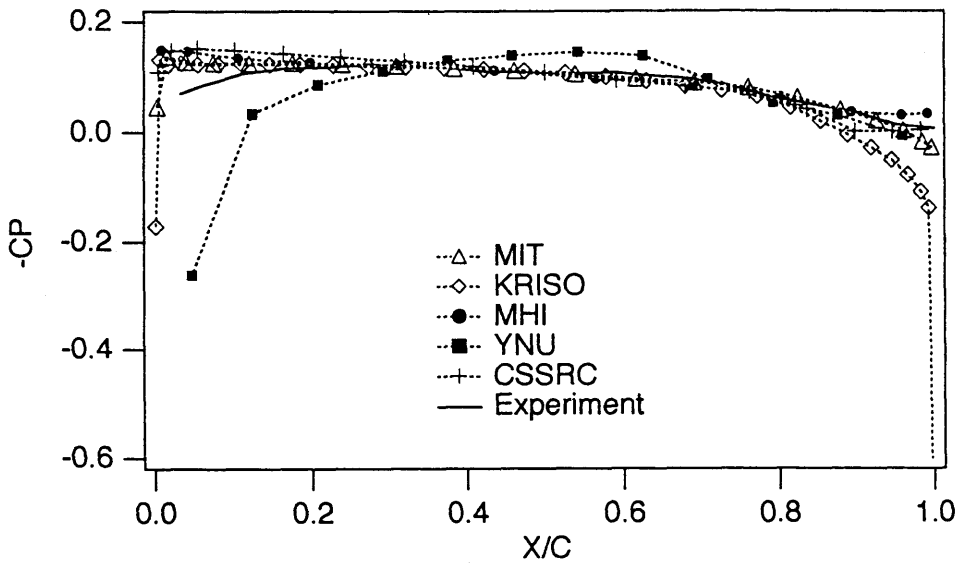
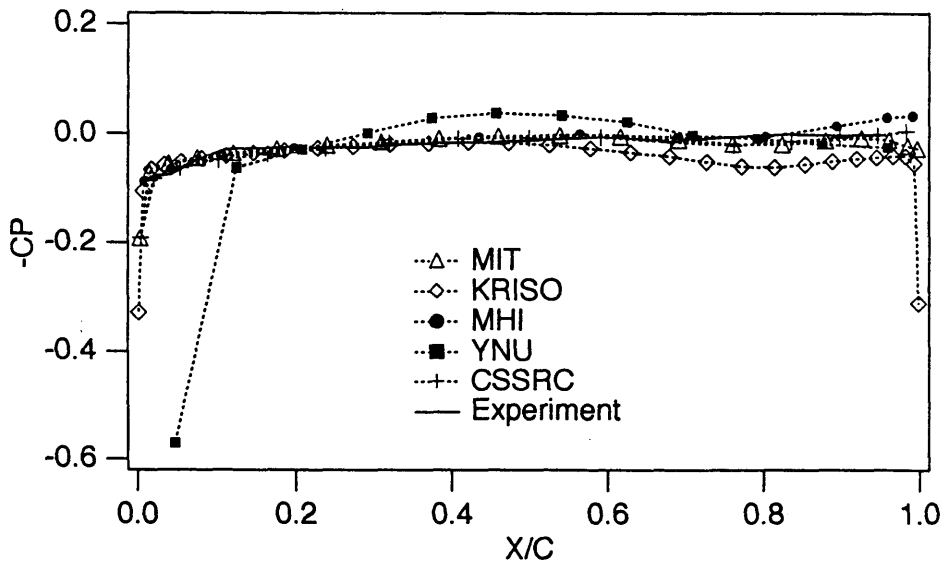Fig.2.3.1(c) CP for Case D (DTRC4119, J=0.833, Without Hub, Devised Wake)
on 0.9R Back

Fig.2.3.1(f) CP for Case D (DTRC4119, J=0.833, Without Hub, Devised Wake)
on 0.9R Face

Fig.2.4.1(a) CP for Case E (DTRC4119 , J=0.833 , With Hub , Devised Wake)
0.3R Back

Fig.2.4.1(d) CP for Case E (DTRC4119 , J=0.833 , With Hub , Devised Wake)
on 0.3R Face
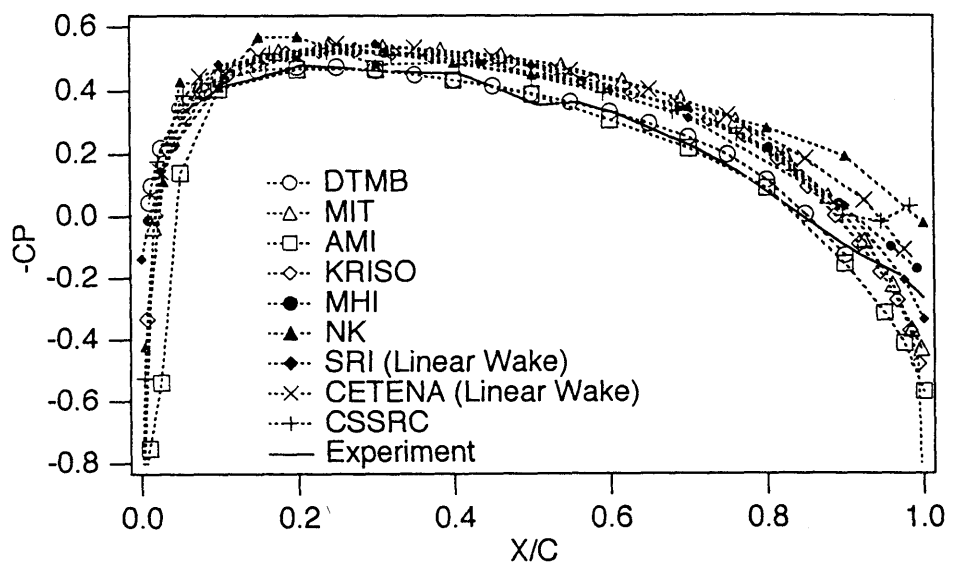
Fig.2.4.1(b) CP for Case E (DTRC4119, J=0.833 , With Hub , Devised Wake)
on 0.7R Back
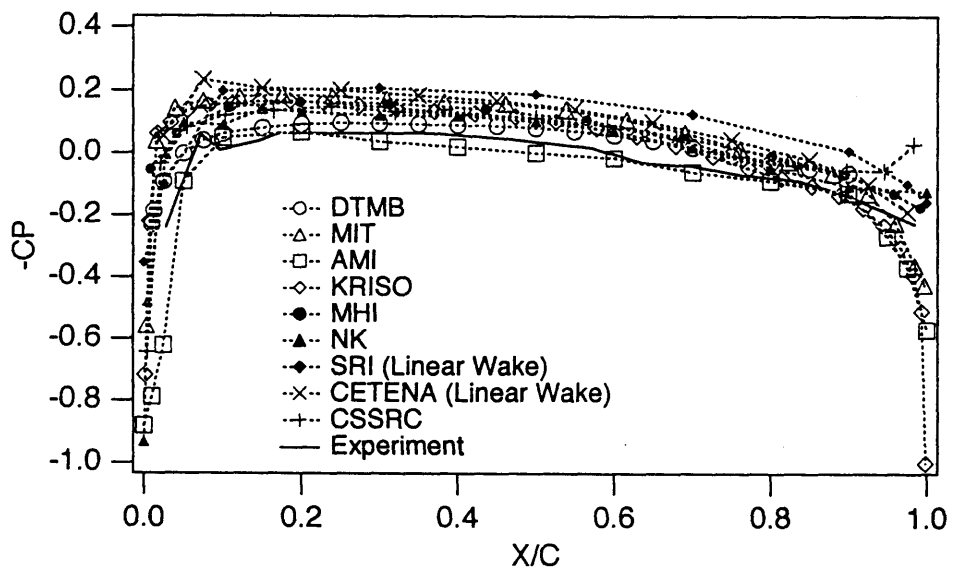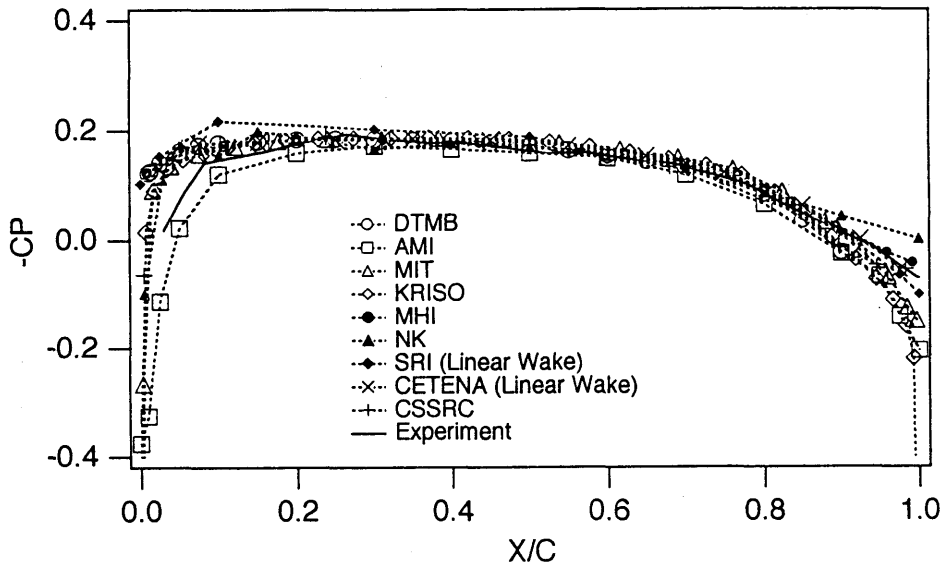

Fig.2.4.1(e) CP for Case E (DTRC4119 , J=0.833 , With Hub , Devised Wake)
on 0.7R Face

Fig.2.4.1(c) CP for Case E (DTRC4119 , J=0.833 , With Hub , Devised Wake)
on 0.9R Back
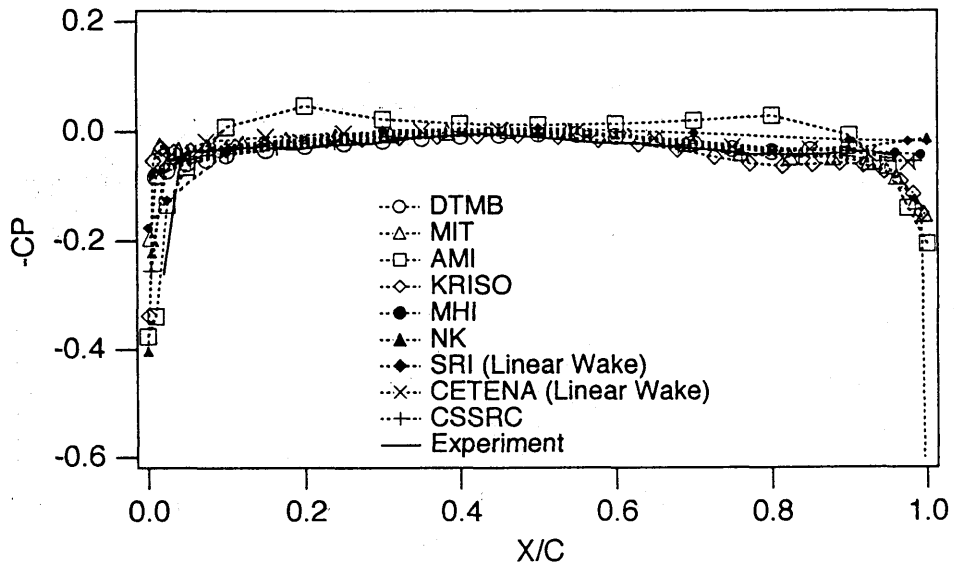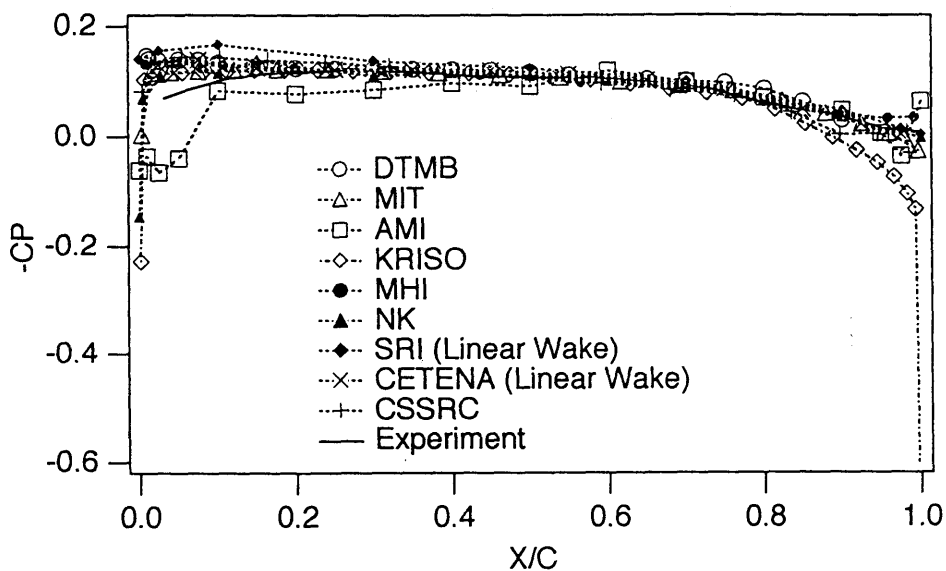

Fig.2.4.1(f) CP for Case E (DTRC4119 , J=0.833 , With Hub , Devised Wake)
on 0.9R Face

Fig.2.5.1(a) CP for CaseF,G (DTRC4119, J=1.1, Without Hub)
on 0.3R Back

Fig.2.5.1(d) CP for CaseF,G (DTRC4119, J=1.1, Without Hub)
on 0.3R Face

Fig.2.5.1(b) CP for CaseF,G (DTRC4119, J=1.1, Without Hub)
on 0.7R Back
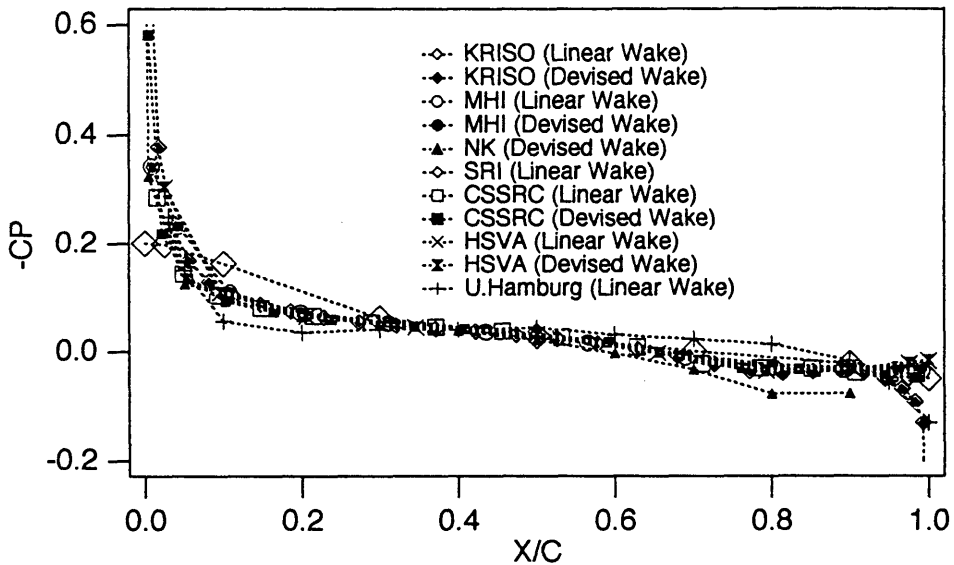
Fig.2.5.1(e) CP for CaseF,G (DTRC4119, J=1.1, Without Hub)
on 0.7R Face
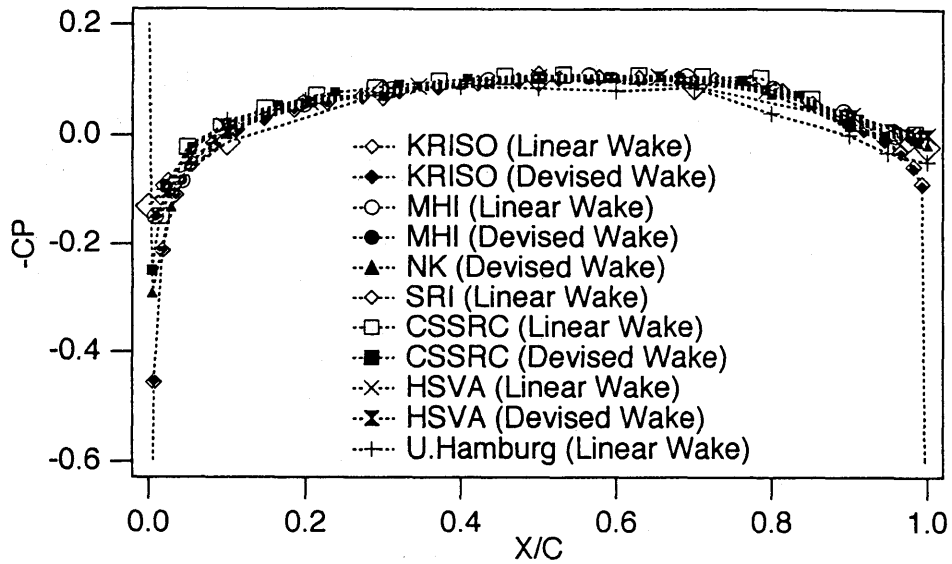
Fig.2.5.1(c) CP for CaseF,G (DTRC4119, J=1.1, Without Hub)
on 0.9R Back
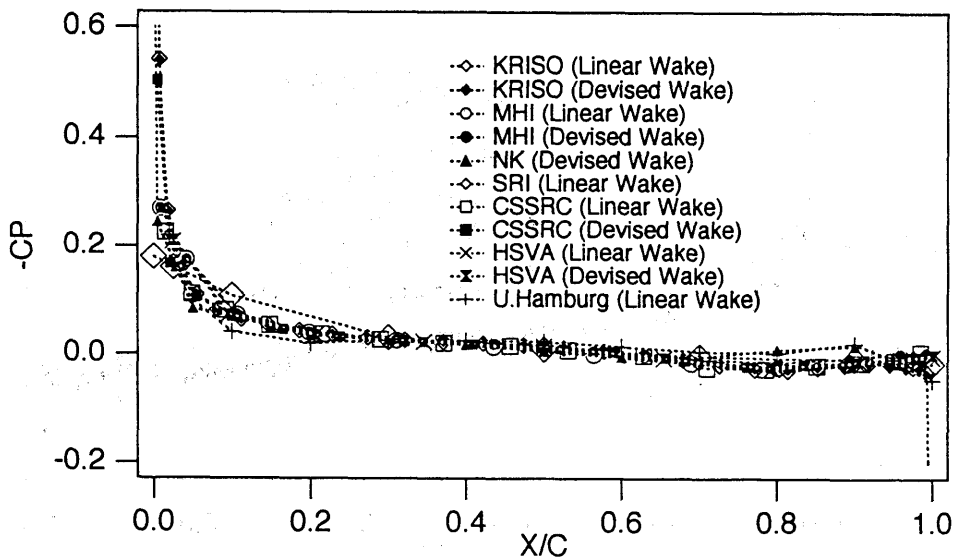
Fig.2.5.1(f) CP for CaseF,G (DTRC4119, J=1.1, Without Hub)
on 0.9R Face

Fig.2.6.1(a) CP for Case H (DTRC4842 , J=0.905 , With Hub , Devised Wake)
0.4R Back

Fig.2.6.1(d) CP for Case H , DTRC4842 , J=0.905 , With Hub , Devised Wake)
0.4R Face

Fig.2.6.1(b) CP for Case H (DTRC4842 , J=0.905 , With Hub , Devised Wake)
0.7R Back

Fig.2.6.1(e) CP for Case H (DTRC4842 , J=0.905 , With Hub , Devised Wake)
0.7R Face

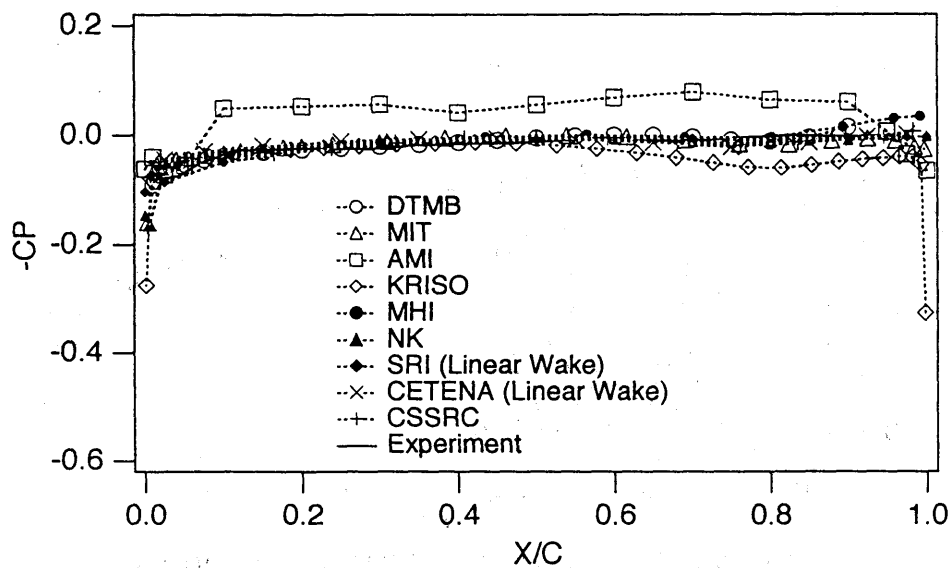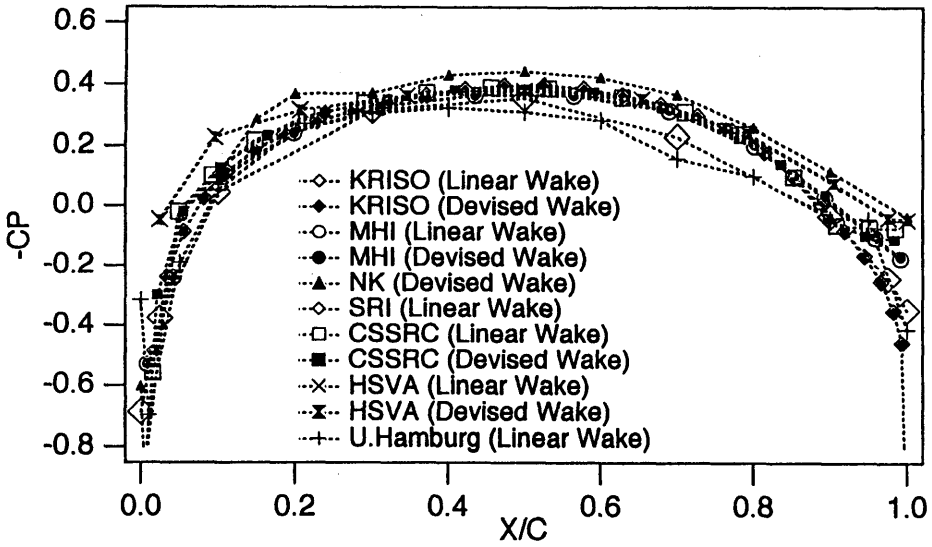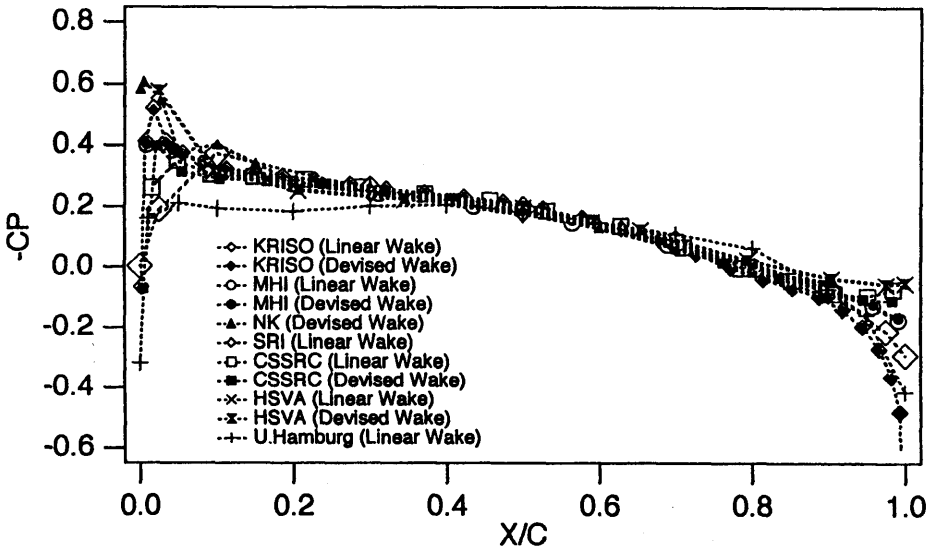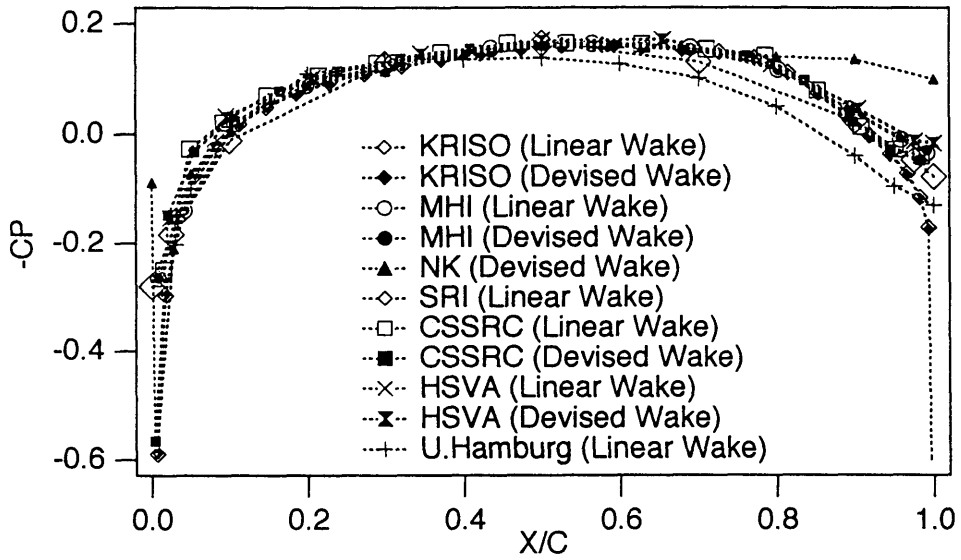Fig.2.6.1(c) CP for Case H (DTRC4842 , J=0.905 , With Hub , Devised Wake)
0.9R Back

Fig.2.6.1(f)CP for Case H (DTRC4842 , J=0.905 , With Hub , Devised Wake)
0.9R Face
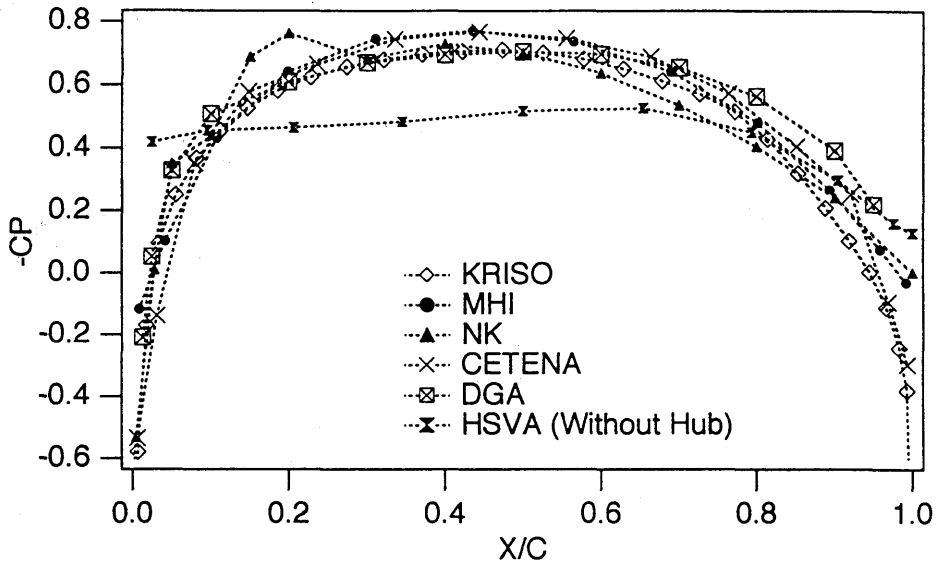
Fig.2.7.1(a) CP for Case I (DTRC4842I , J=0.905 , With Hub , Devised Wake)
0.4R Back
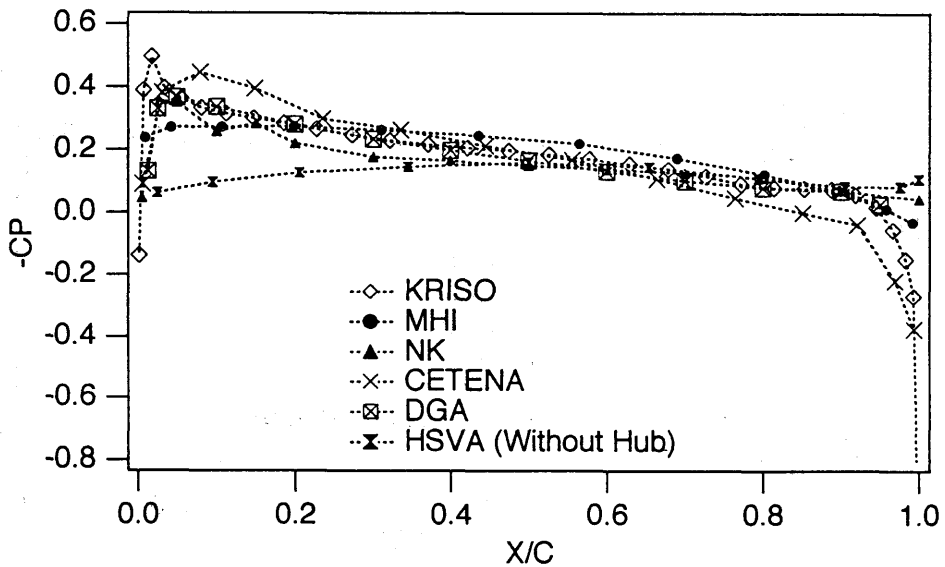
Fig.2.7.1(d) CP for Case I (DTRC4842I , J=0.905 , With Hub , Devised Wake)
0.4R Face
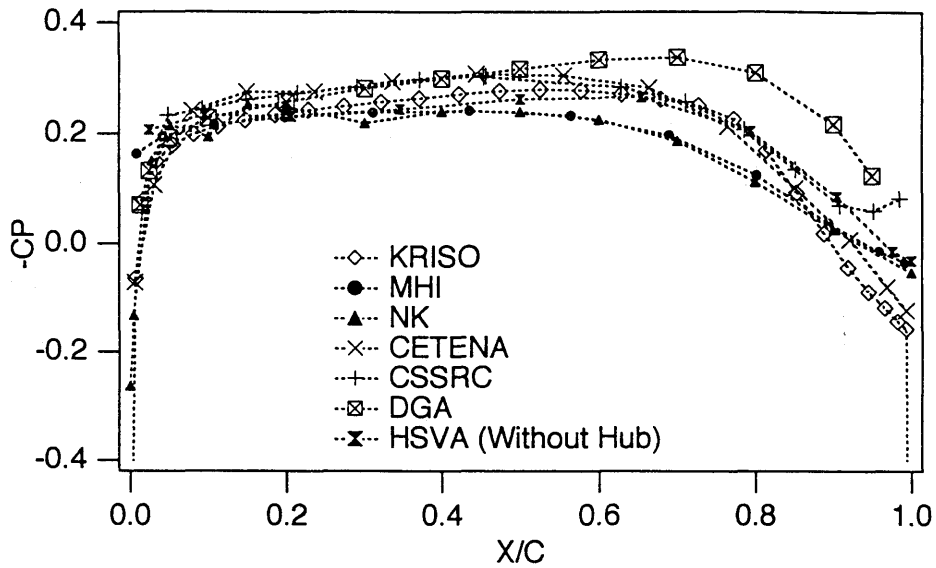
Fig.2.7.1(b) Case I (DTRC4842I , J=0.905 , With Hub , Deviced Wake)
0.7R Back
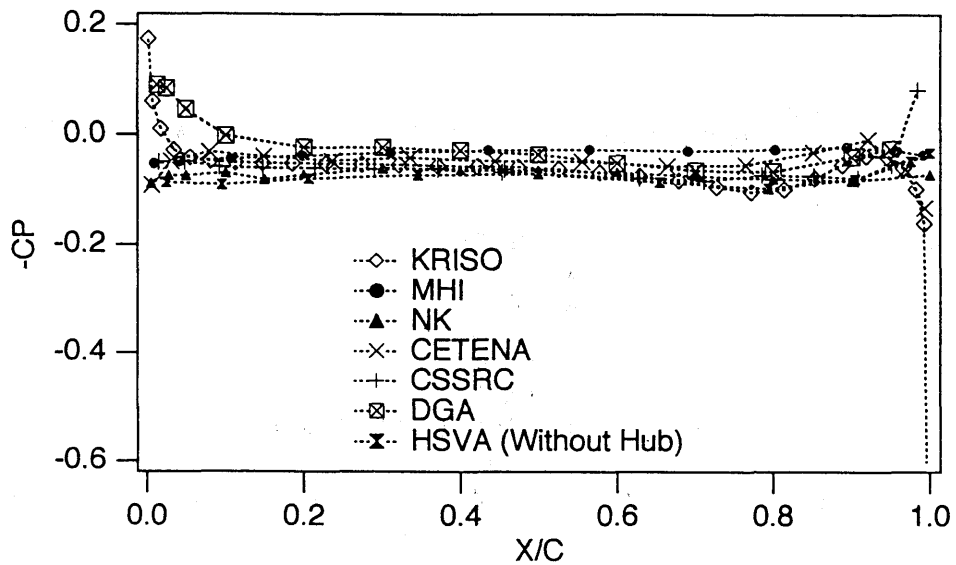
Fig.2.7.1(e) CP for Case I (DTRC4842I , J=0.905 , With Hub , Devised Wake)
0.7R Face
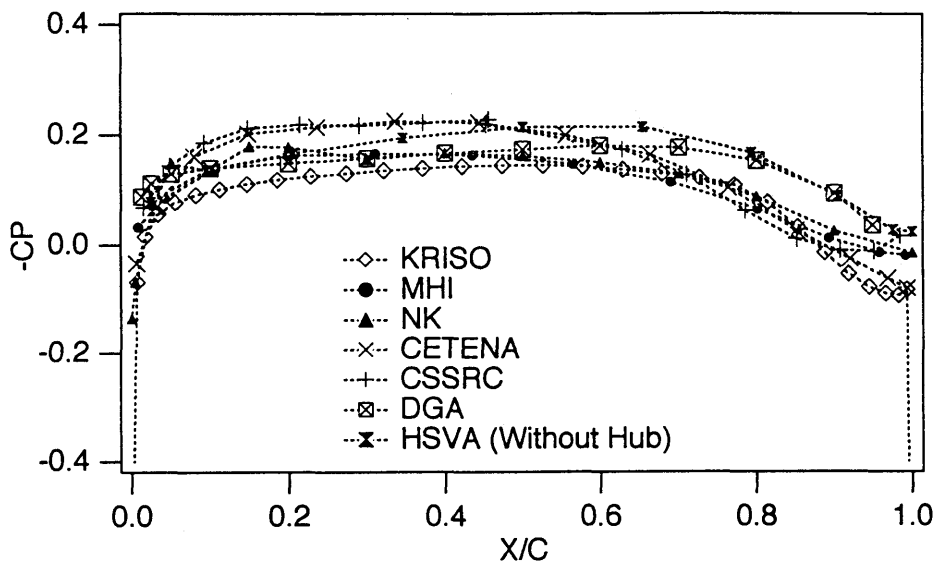
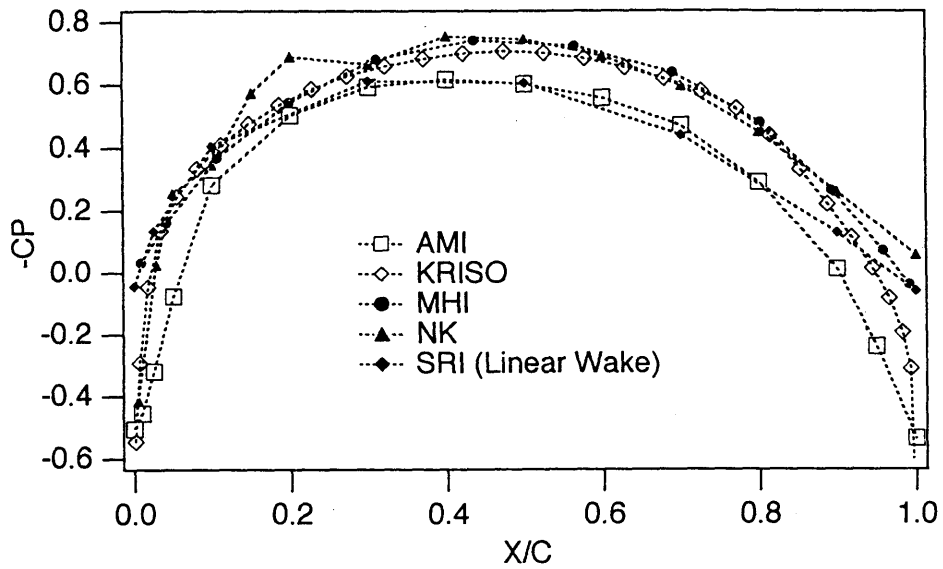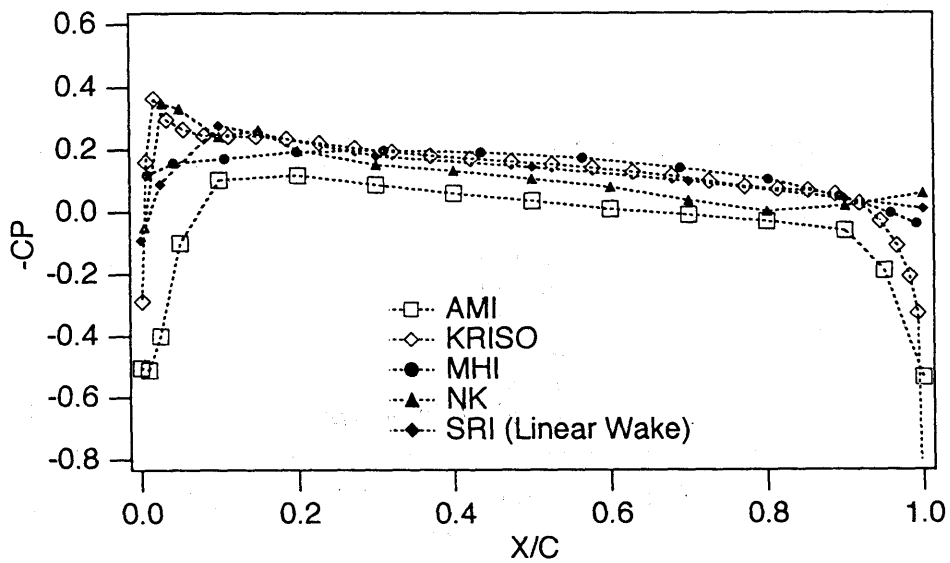Fig.2.7.1(c) CP for Case I (DTRC4842I , J=0.905 , With Hub , Devised Wake)
0.9R Back
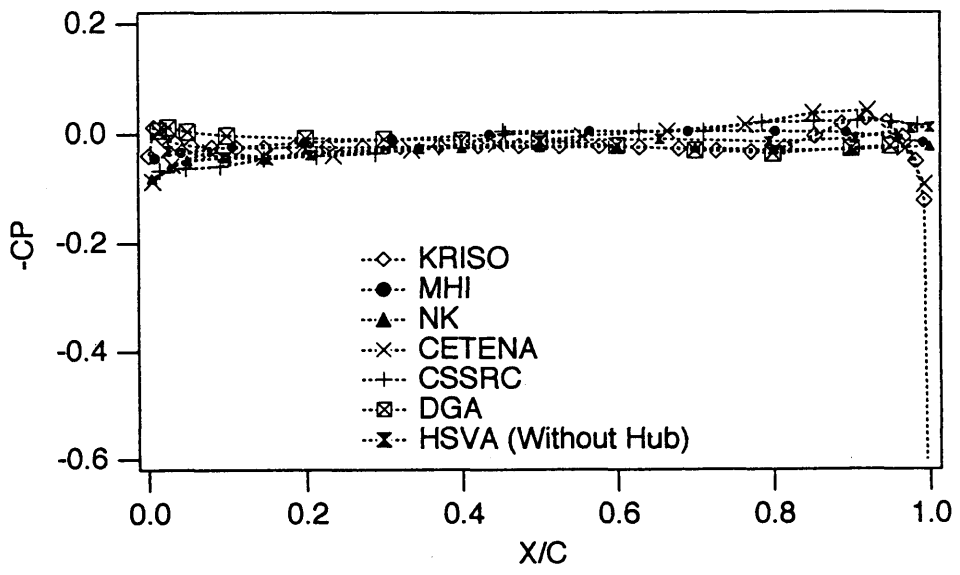
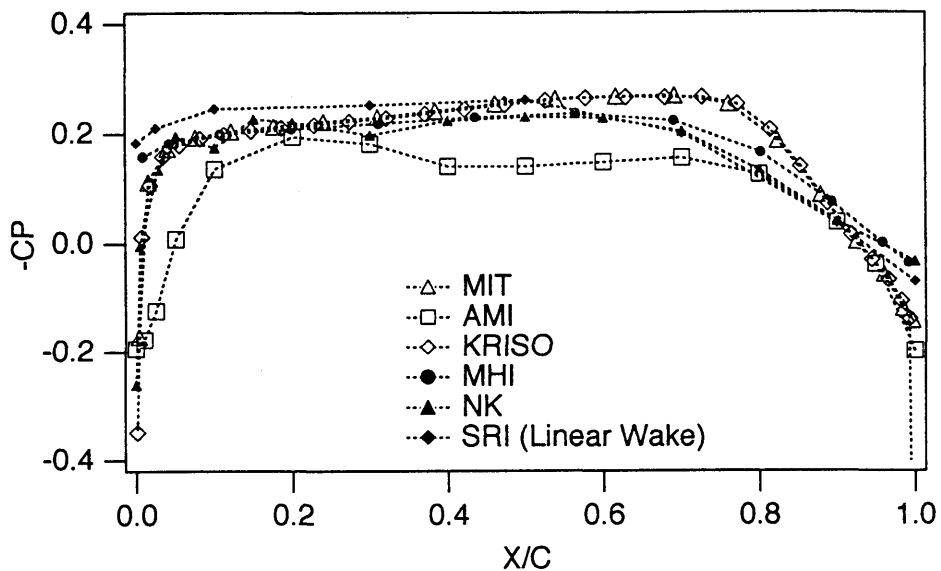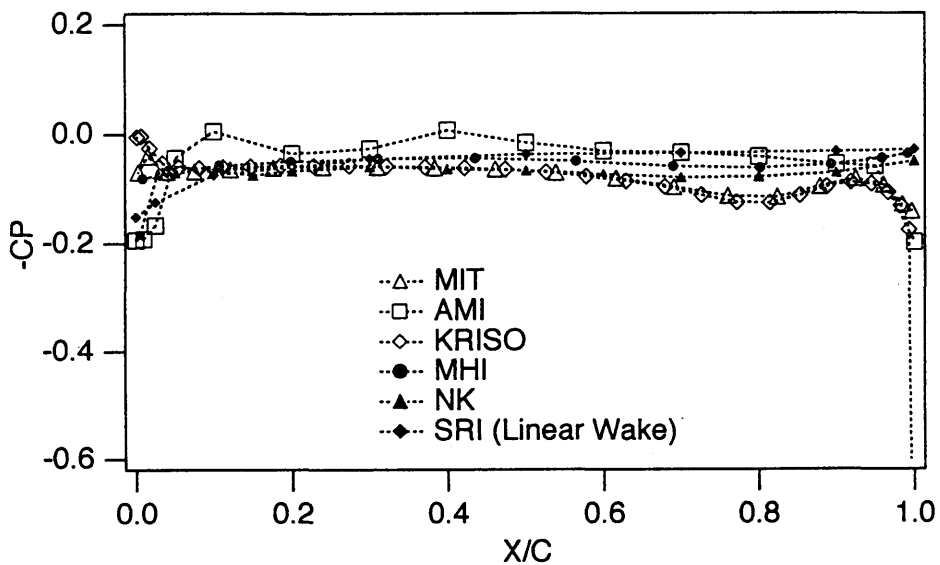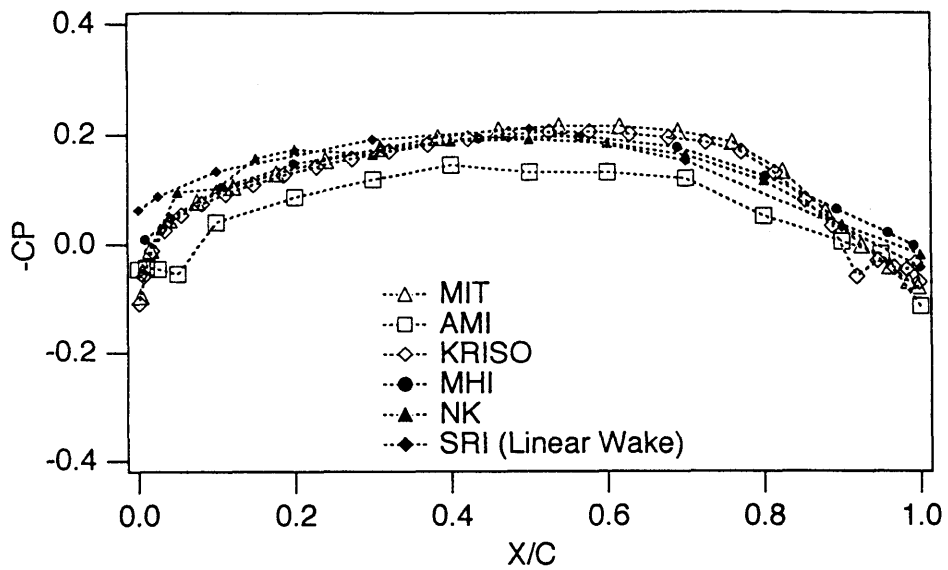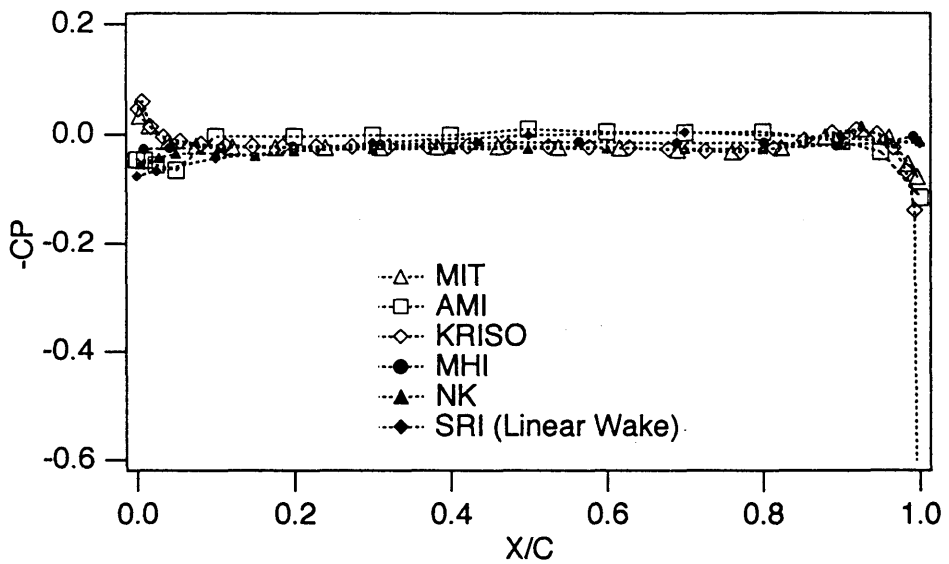Fig.2.7.1(f) CP for Case I (DTRC4842I , J=0.905 , With Hub , Devised Wake)
0.9R Face
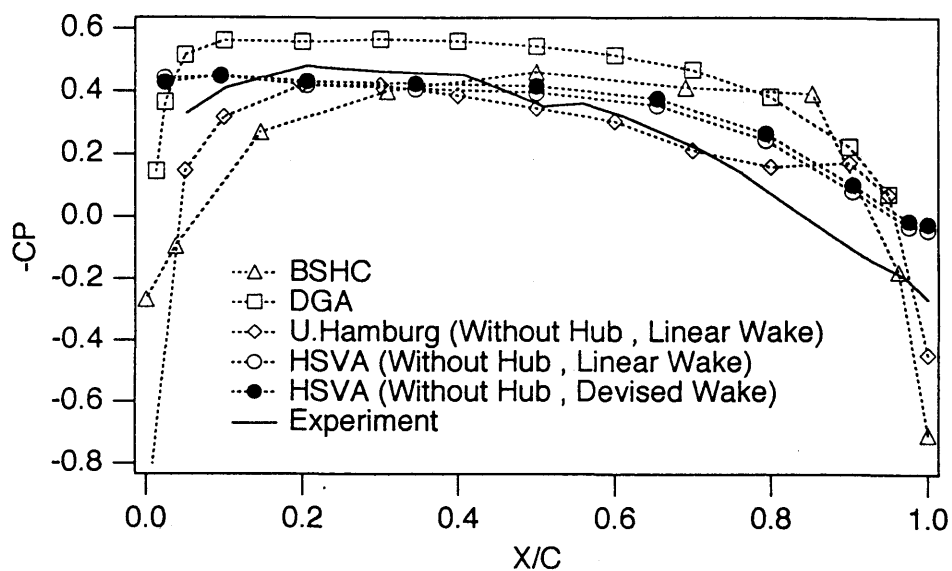
Fig.2.1.2(a) CP for Case E (DTRC4119 , J=0.833 , With Hub , Devised Wake)
on 0.3R Back
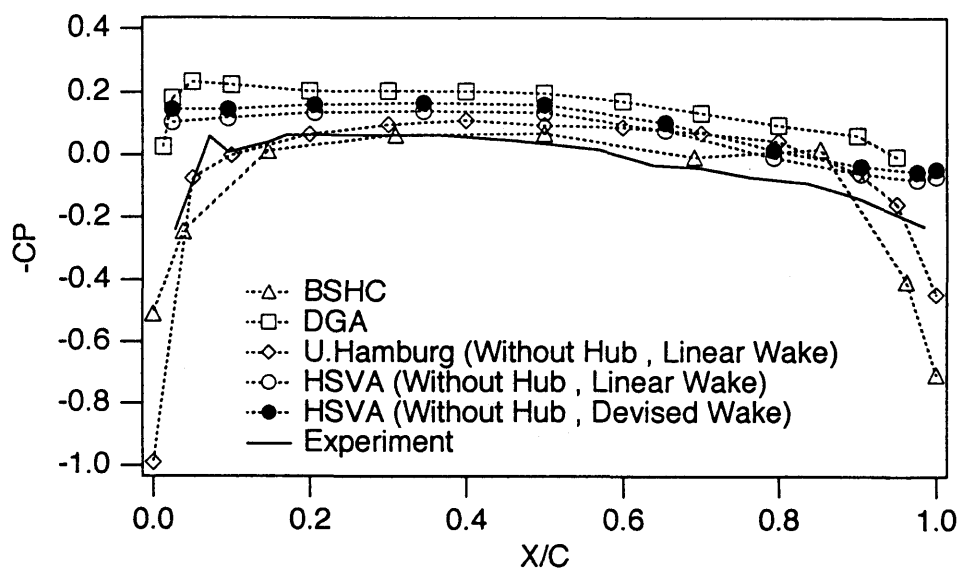
Fig.2.1.2(d) CP for Case E , DTRC4119 , J=0.833 , With Hub , Devised Wake)
on 0.3R Face

Fig.2.1.2(b) CP for Case E (DTRC4119 , J=0.833 , With Hub , Devised Wake)
on 0.7R Back
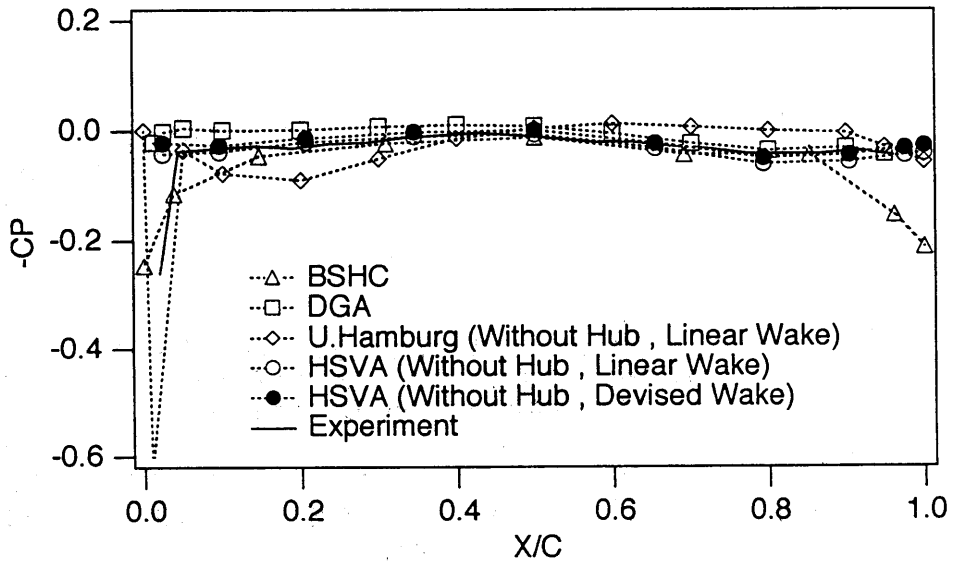
Fig.2.1.2(e) CP for Case E (DTRC4119 , J=0.833 , With Hub , Devised Wake)
on 0.7R Face

Fig.2.1.2(c) CP for Case E (DTRC4119 , J=0.833 , With Hub , Devised Wake)
on 0.9R Back

Fig.2.1.2(f) CP for Case E (DTRC4119 , J=0.833 , With Hub , Devised Wake)
on 0.9R Face

Fig.3(a) Panel Arrangement of Linear Wake
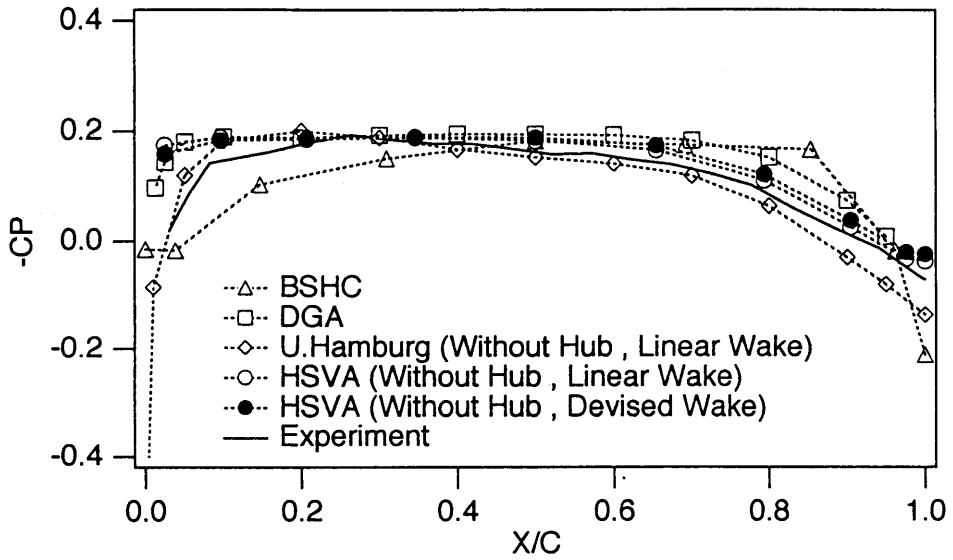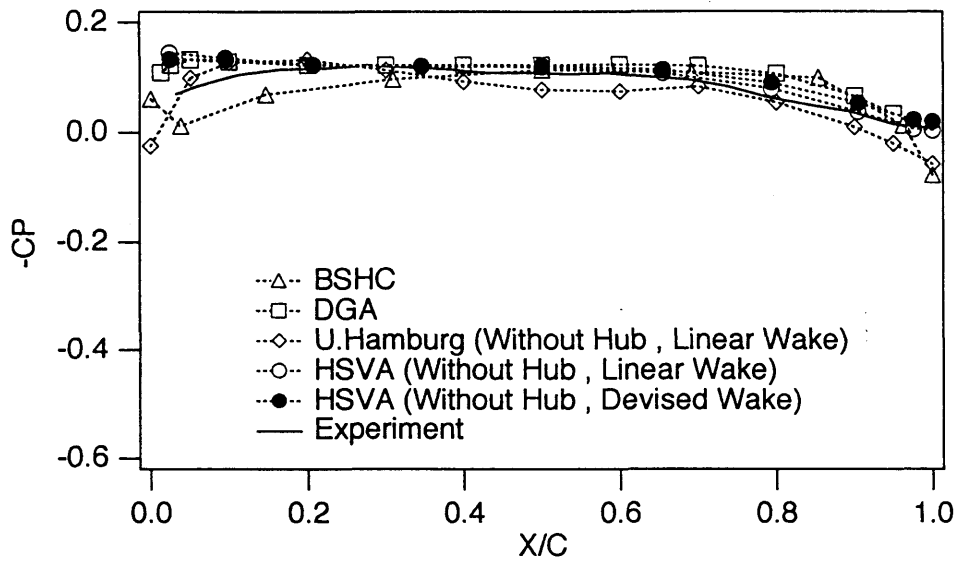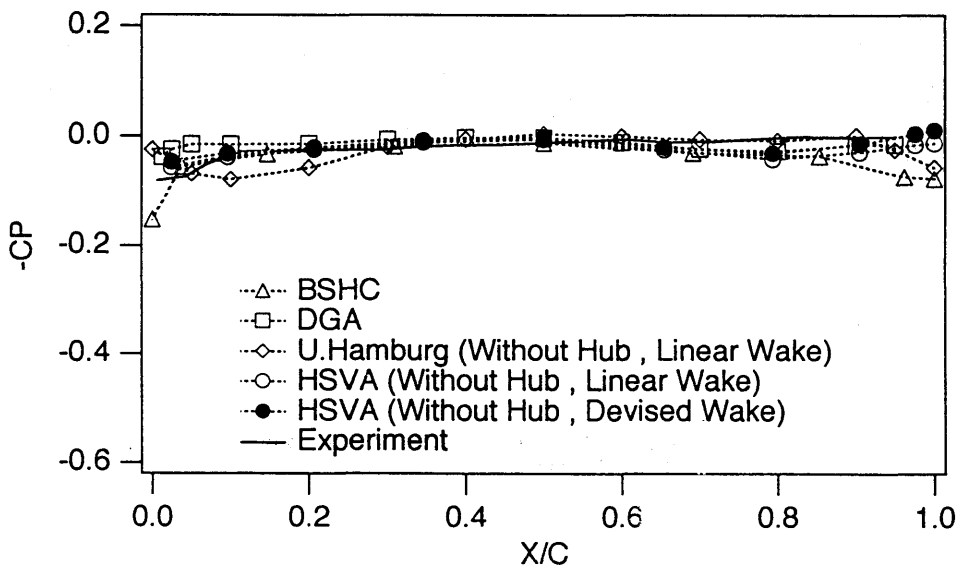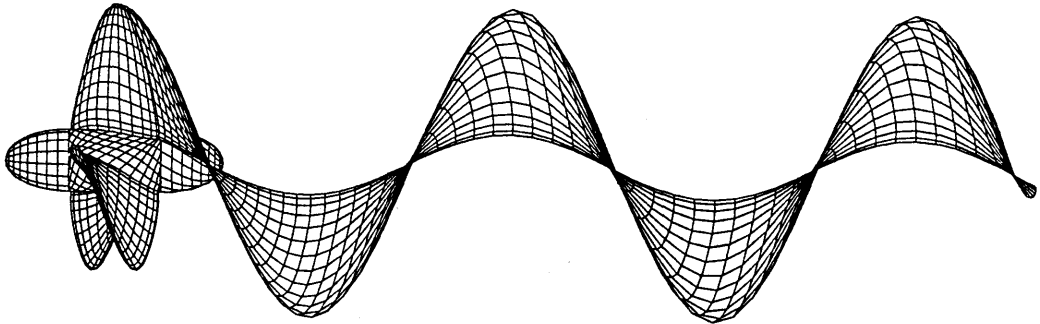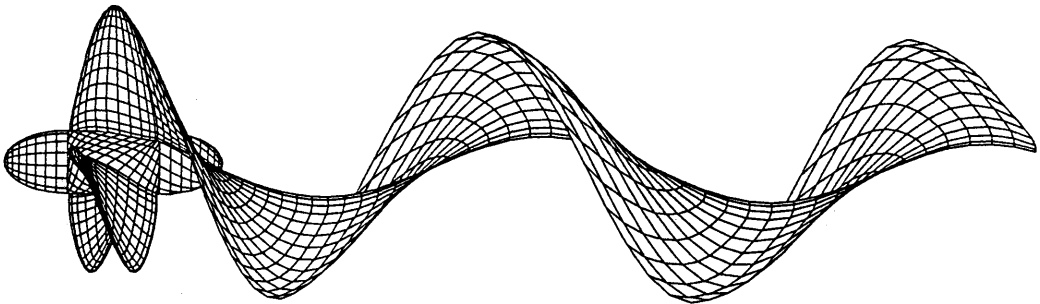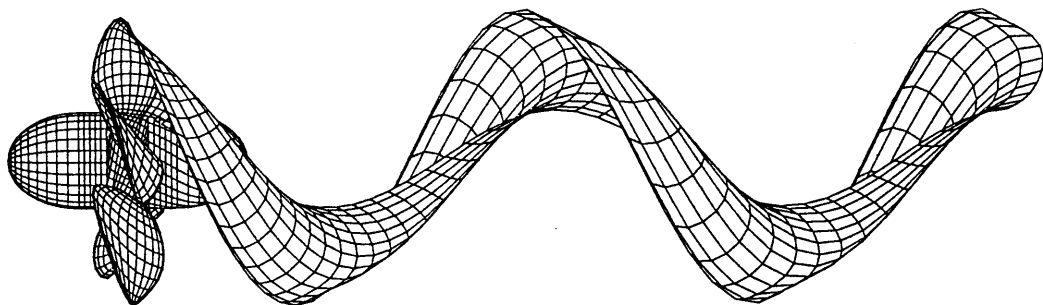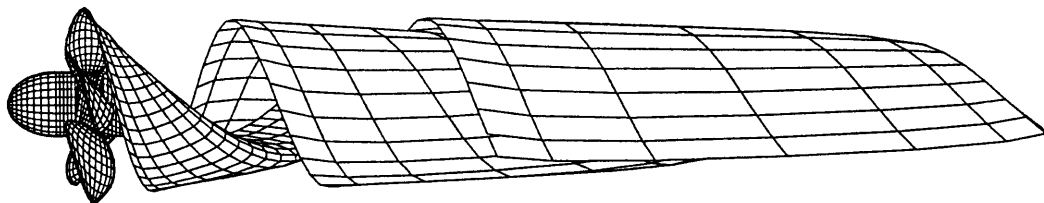for DTRC4119

Fig.3(b) Panel Arrangement of Devised Wake
for DTRC4119

**Fig.3(c) Panel Arrangement of Linear Wake
for DTRC4842I**

**Fig.3(d) Panel Arrangement of Devised Wake
for DTRC4842I**

APPENDIX A

Calculation Document

20th ITTC Propulsor Committee
Comparative Calculation of Propellers by Surface Panel Method

Comparative calculation of marine propellers by surface panel method
and workshop for the discussion of the comparison have been planned in
order to make clear the accuracy of the panel method for the analysis of
marine propellers and to review the ability of the method.   This can be
done on the basis of rich numerical results by many panel methods.   The
purpose of the comparison is not the competition of each method.

As the accuracy of the results depends strongly on the numerical
method, the numerical methods should be discussed to the full.   Paneling
for the geometry is one of the most important factor.   Critical number of
panels should be clarified for the required accuracy.   Benefit of the
higher order panel methods should be also found.   Effect of the
individual paneling method appears near the rapidly deformed surface such
as leading edge or tip of the blade.
Using the Surface Panel Method we can get the information for the
effect of the existance of the hub, on which we have few informations.
Another important factor is the treatment of the deformation of blade
wake.   There seems to be many problems to be solved for the treatment of
the deformation of blade wake.
Final factor connecting the calculation results by surface panel
method and the actual characteristics is the correction for viscous
effects.   The correction factor for viscous effects is important from the
practical point of view.
As was described above there are a lot of factors to be made clear.
But there is a limitation of calculation cases.   So we would like to
make three points.   The first is the very simple case without viscous
correction.   This is useful for the validation of the numerical method.
The second is the completed case.   This is useful for the evaluation for
practical applications.   The third is to abstract the important factor
existing in the calculation and in the application.

So the priority of the calculation cases is decided as shown in
Table 1.2.1.   We hope you contribute with as many calculation cases as
you can.   Of course you can decide your calculation cases in your
situation.   In all cases both results with/without viscous correction are