Induced Draft ACC

Presented by ENEXIO, SPX Dry Cooling and Evapco-BLCT

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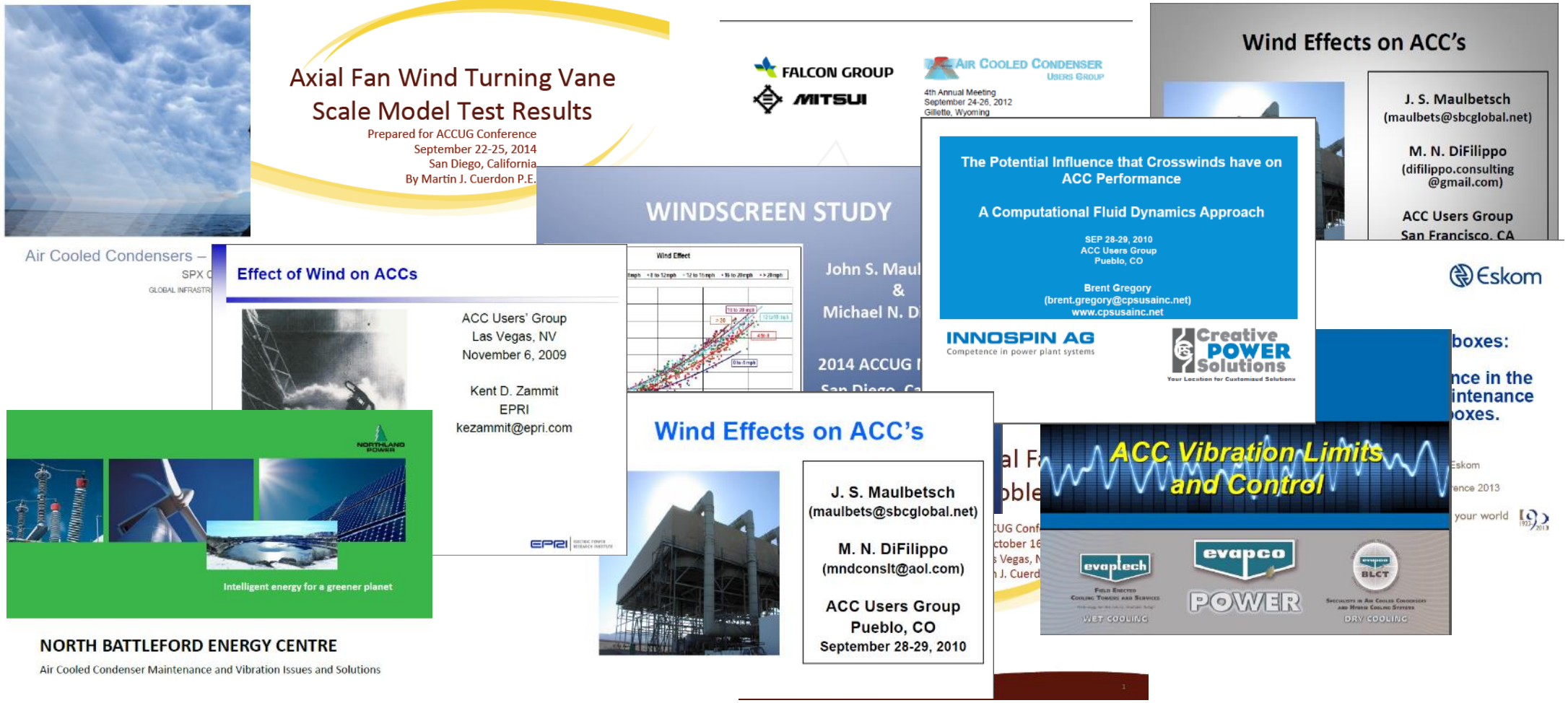
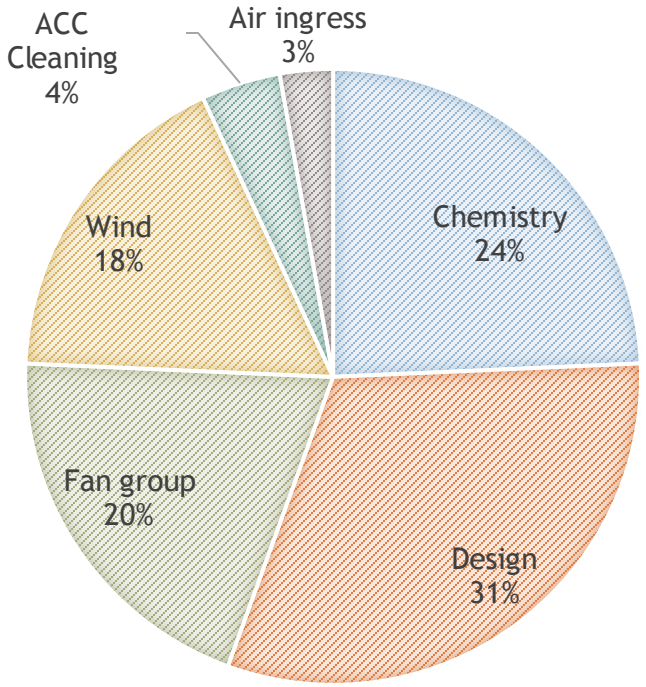
ACC Users Group



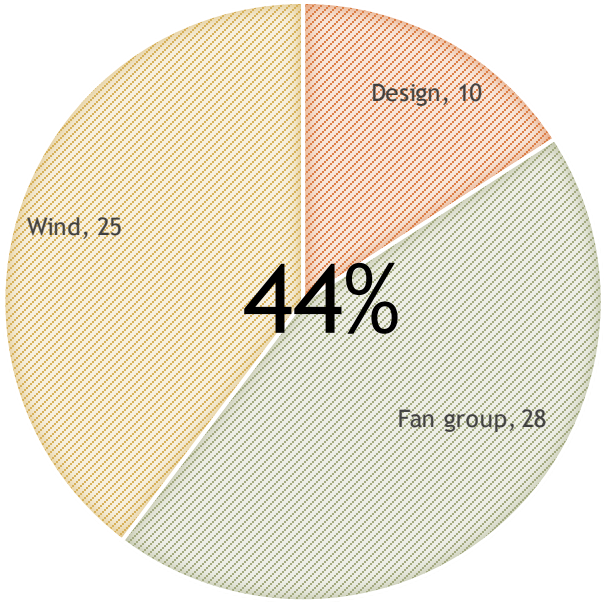
ACC Users Group

Category	Qty.
Chemistry	35
Design	45
Fan group	29
Wind	25
ACC Cleaning	6
Air ingress	4
Total	144

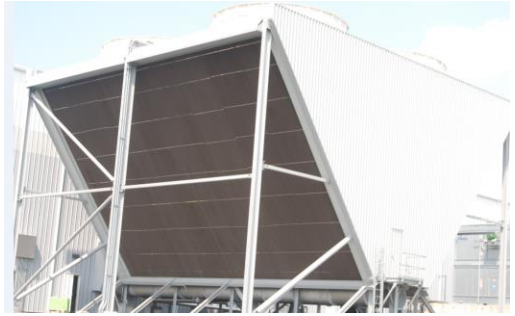
PRESENTATION TOPICS



MITIGATED BY INDUCED DRAFT

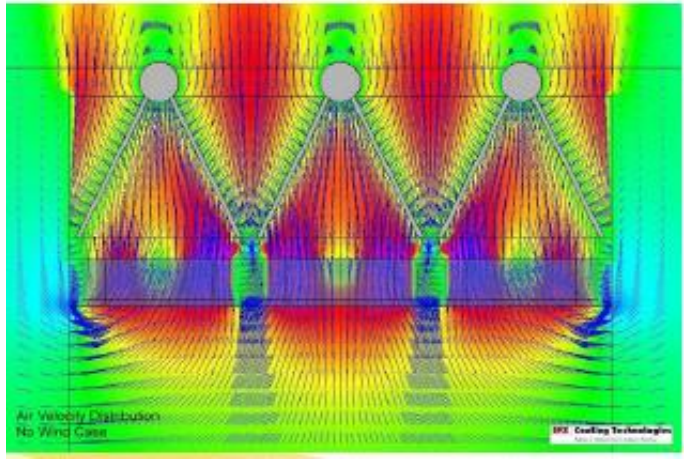


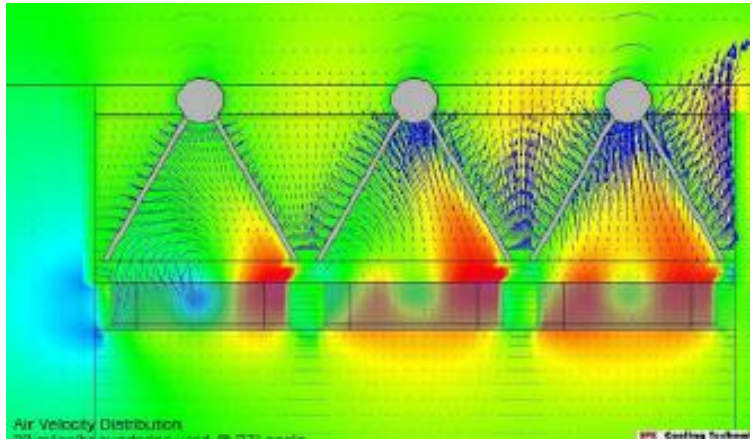
A New Concept?



Wind influence

- Wind can blow across the ACC causing misdistribution of air through the bundles



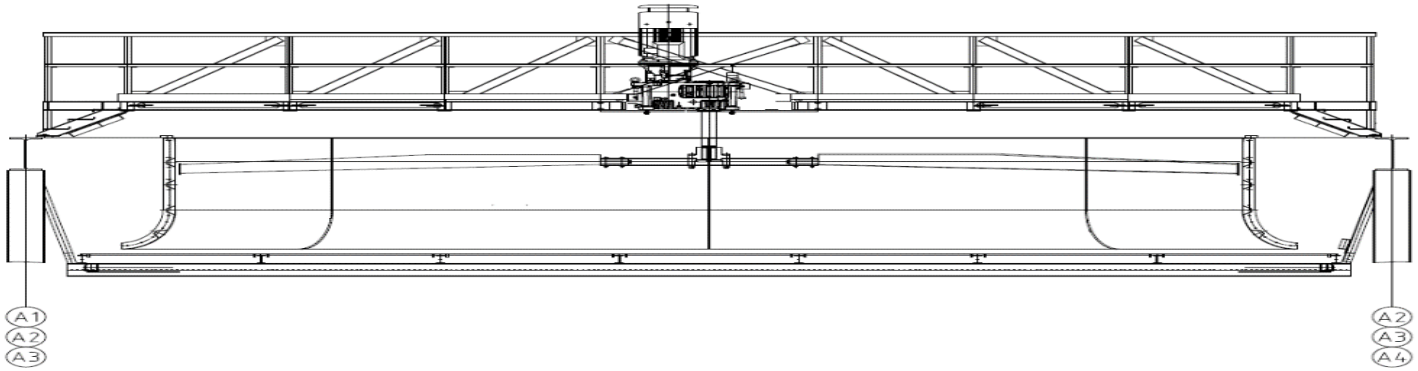


ACCUG 2013 - Solving ACC Axial Fan Wind Related Problems (Advanced Analytical Solutions, LLC)

- Result: More uniform air distribution across fan group in Induced Draft ACC's due to the bundles diffusing the air
- Induced Draft design reduces vibration resulting from windy conditions and mitigates undue stress to motor and gearbox

Vibration & Loading

- Risk of fan bridge vibration can be minimized by dynamic calculation and design but never 100% eliminated
- Induced Draft design does not require a fan bridge (various designs)



Recirculation

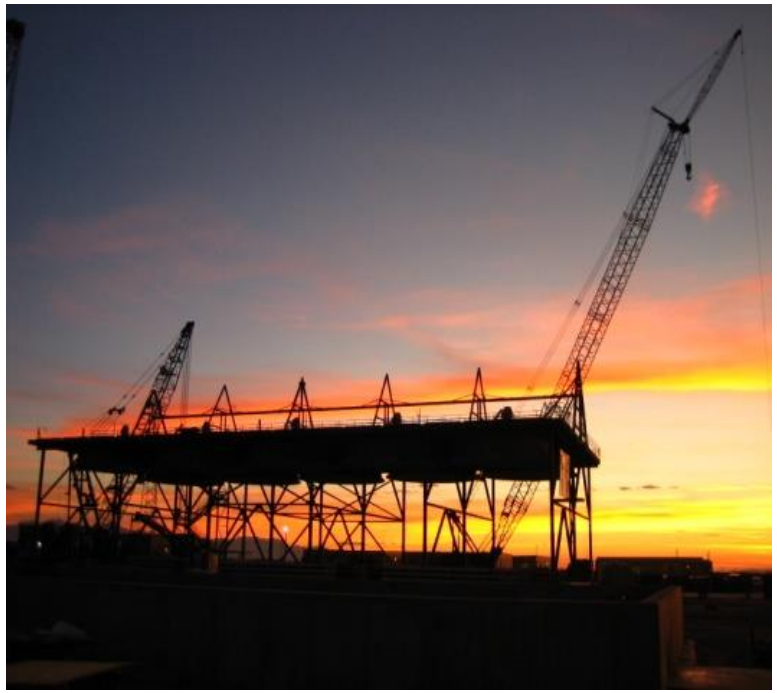
- Hot Air Recirculation
  - Increase in air inlet temperature = decrease in plant performance
  - With induced draft, exit air velocity is increased
- ACC Users Group

  ACCUG 2009 – Wind Effects on ACC (EPRI)

  ACCUG 2010 – The Potential influence that crosswinds have on ACC Performance (Creative Power Solutions)

Constructability

- Construction and Erection: ~50% of an ACC turnkey offering
- Massive reduction in steel
- Improved constructability, reduction in total man-hours
- Lower overall height
- Reduced number of shipments
- Safer with greater productivity, larger percentage of erection performed at grade



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ENEXIO InAIR ACC

SPX DRY COOLING W-Style ACC®

evapco BLCT ADVANCED TECHNOLOGY ACC