

KIC 005115335

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005115335-01	OBS	No	0.783192	131.849536	1440.6	2.500	12.4	-1.0	0.75	4495	2.70	901.30
005115335-02	OBS	No	0.781946	131.845337	337.8	2.601	10.4	8.5	0.75	4495	1.69	903.21
005115335-03	OBS	No	0.782575	132.065633	434.9	4.407	9.3	7.5	0.75	4495	1.48	902.25
005115335-04	OBS	No	0.780326	132.189119	640.4	1.500	7.1	-1.0	0.75	4495	1.81	905.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005115335-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
005115335-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005115335-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005115335-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

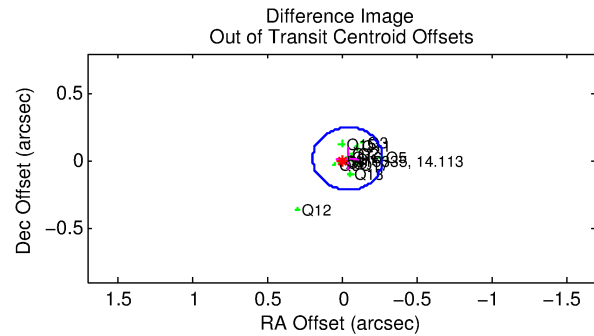
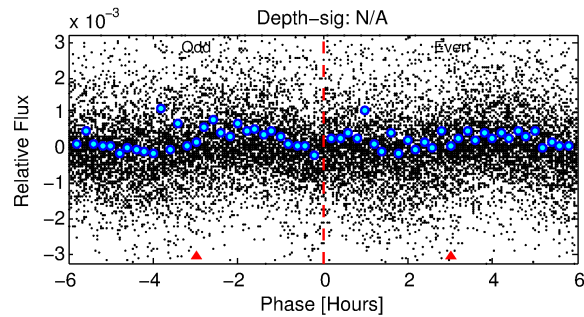
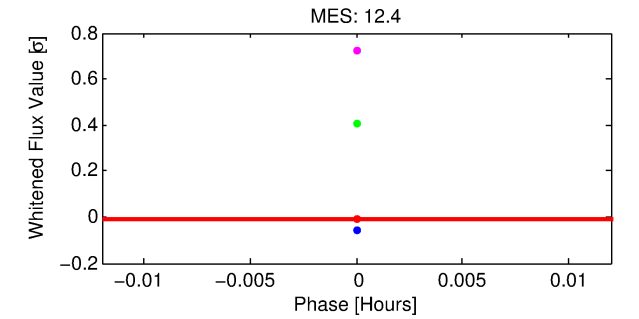
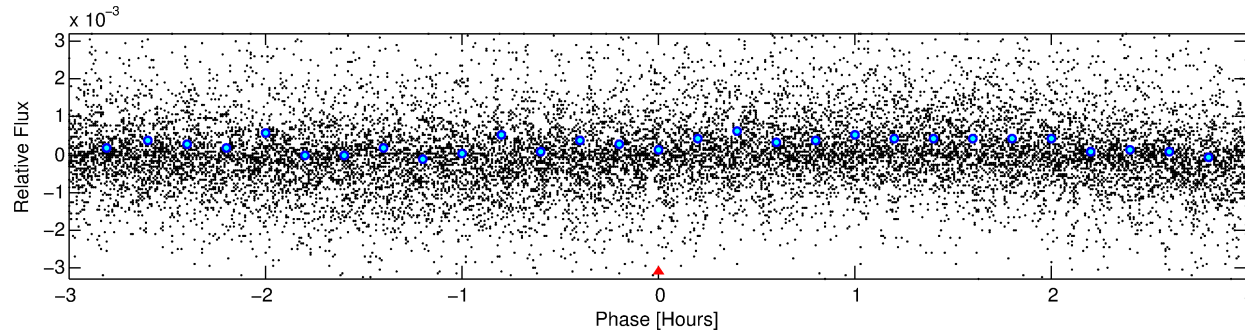
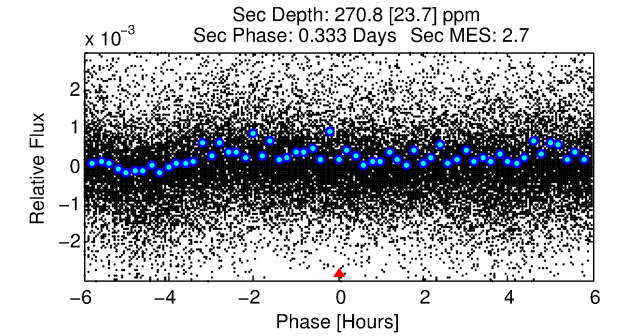
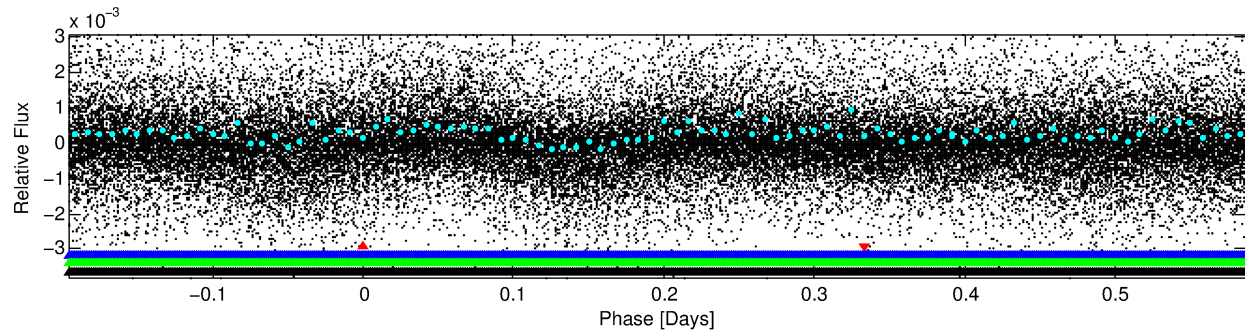
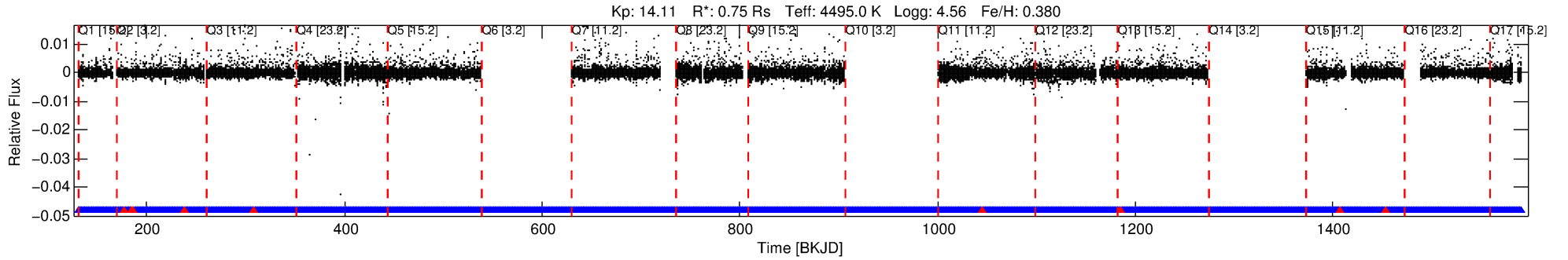
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005115335-01

No Significant Match Found

DV One-Page Summary

KIC: 5115335 Candidate: 1 of 4 Period: 0.783 d



TPS TCE Results:

Period = 0.78319 d
Epoch = 131.8495 BKJD

DV fit results are unavailable

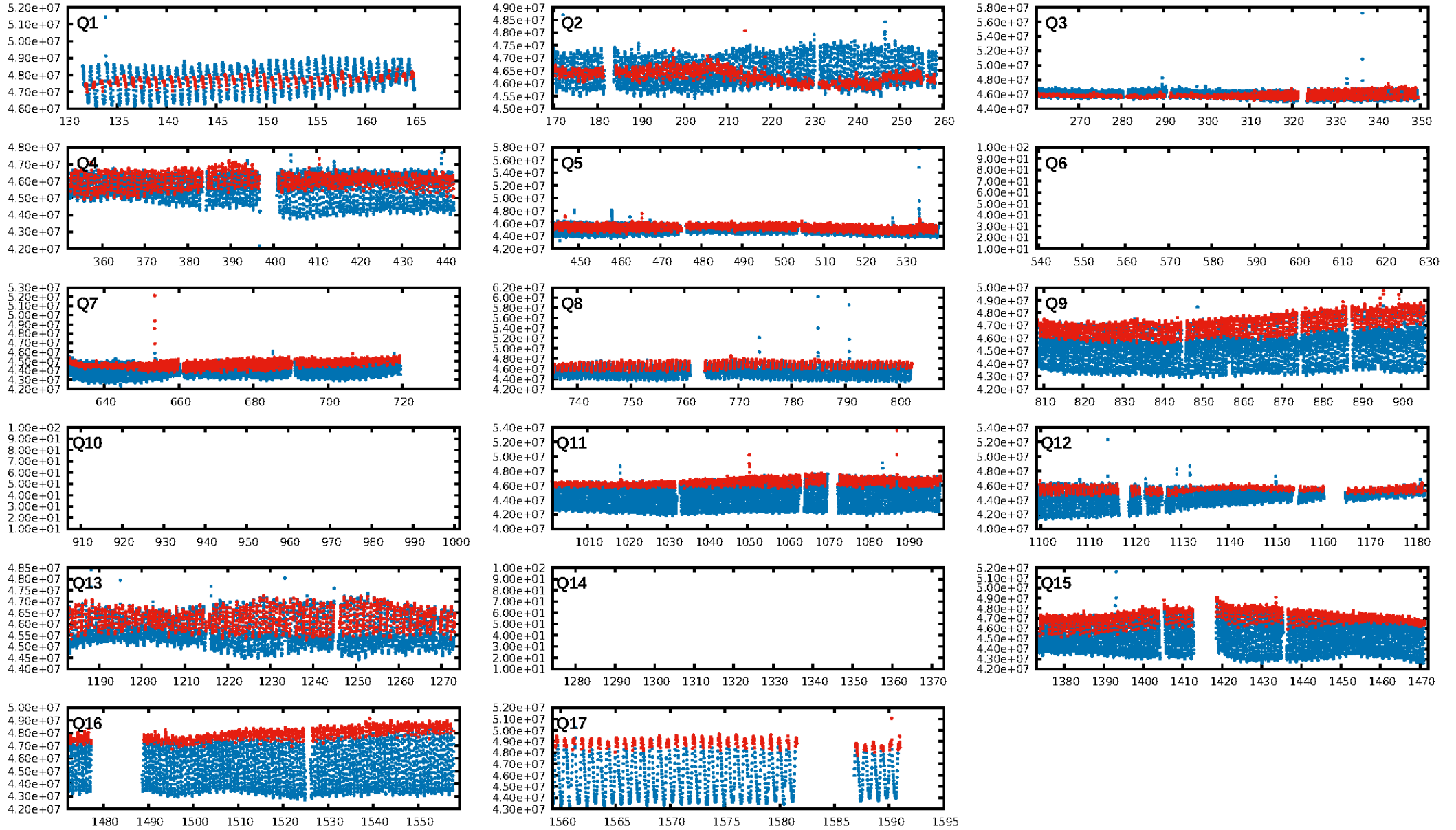
DV Diagnostic Results:

ShortPeriod-sig: 0.2% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1275/1284]
GhostDiagnostic-chr: 45.01
Centroid-sig: 0.4%
Centroid-so: 5.952 arcsec [1.91σ]
OotOffset-rm: 0.045 arcsec [0.57σ]
KicOffset-rm: 0.229 arcsec [3.17σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 0.71 [10/14]
DiffImageOverlap-fno: 0.07 [1/14]

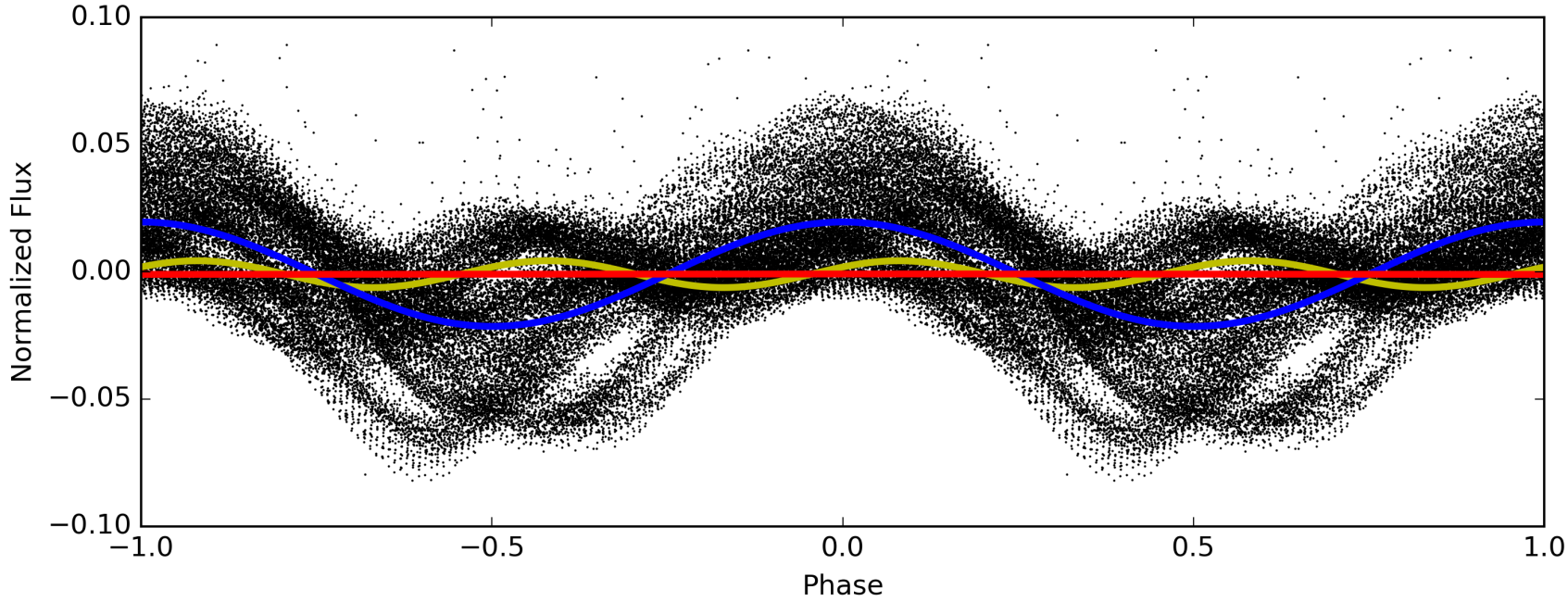
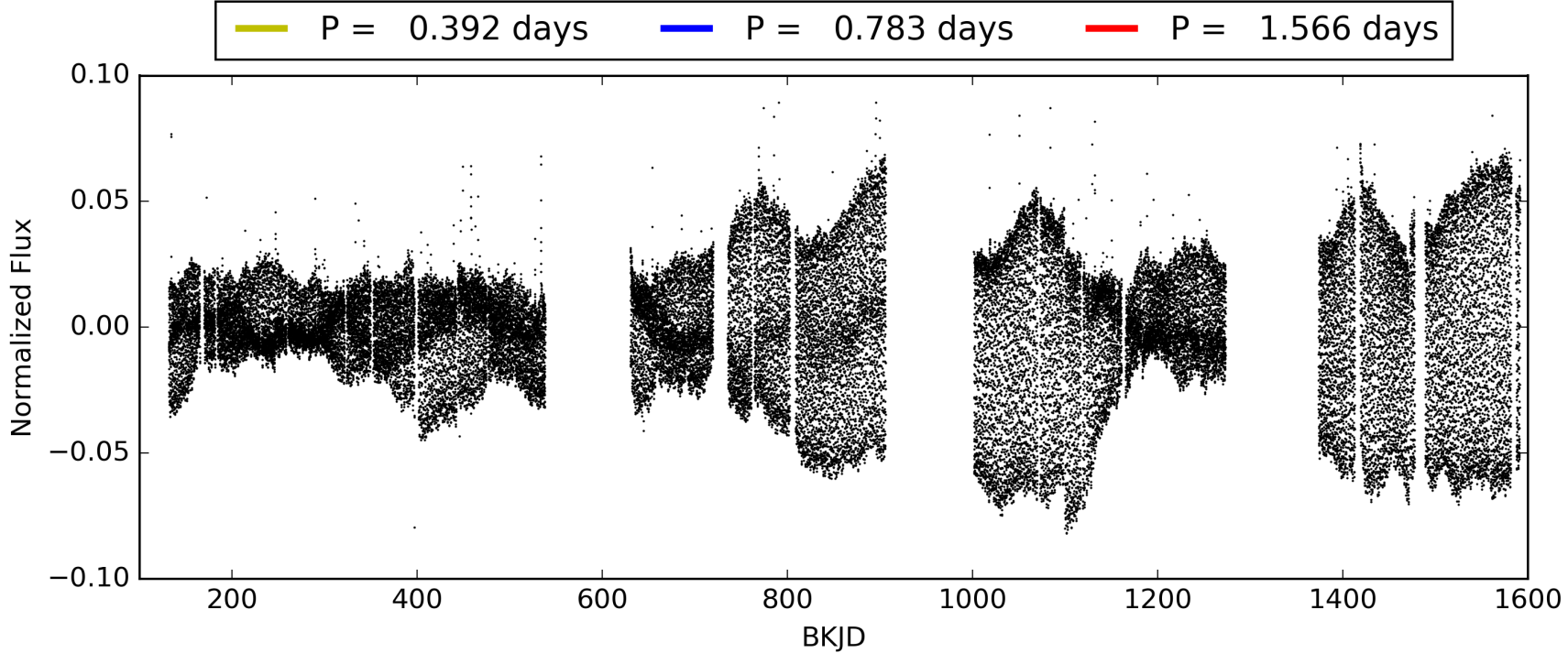
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:59:24 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005115335-01, PDC Light Curves

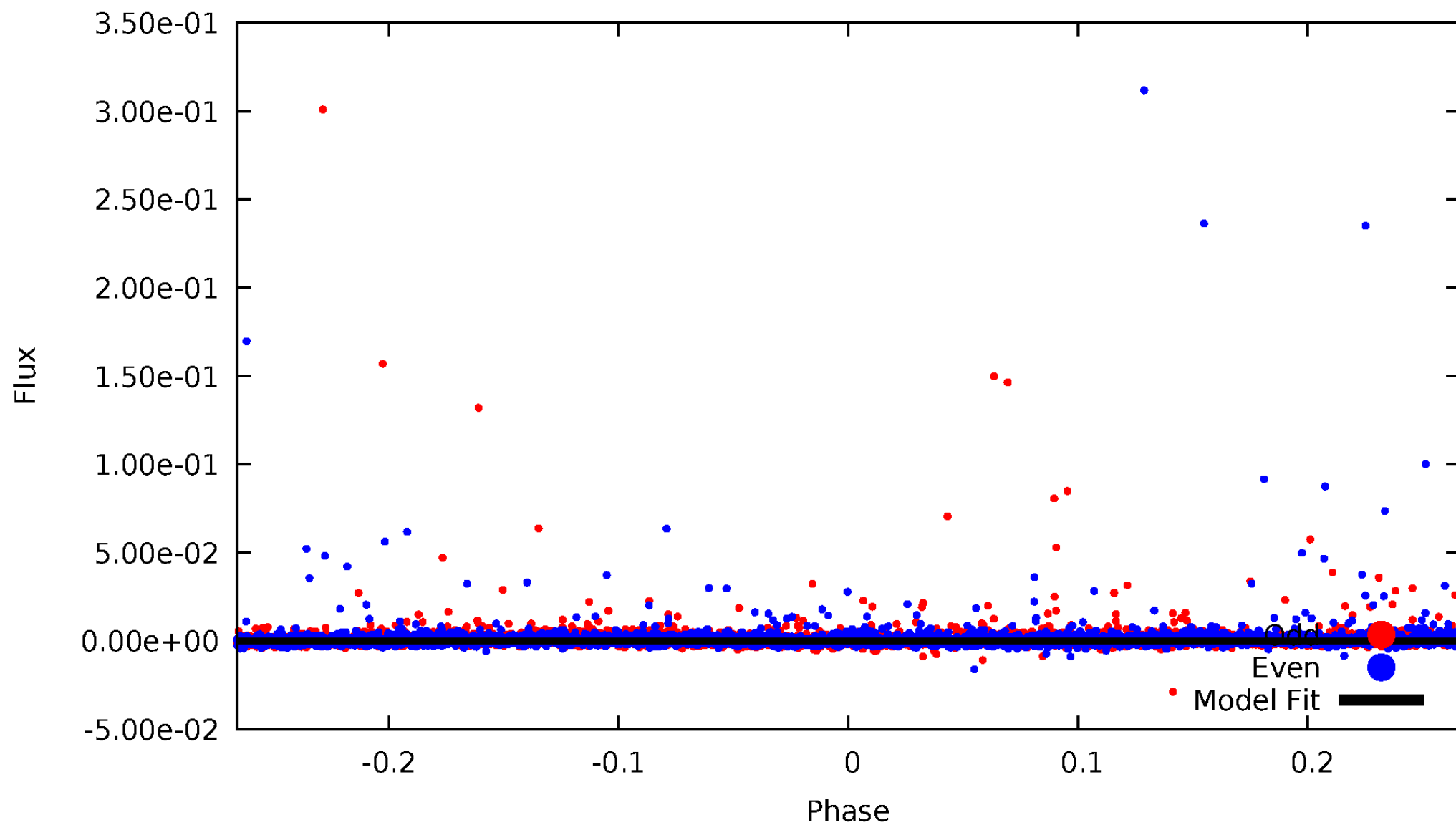


TCE 005115335-01



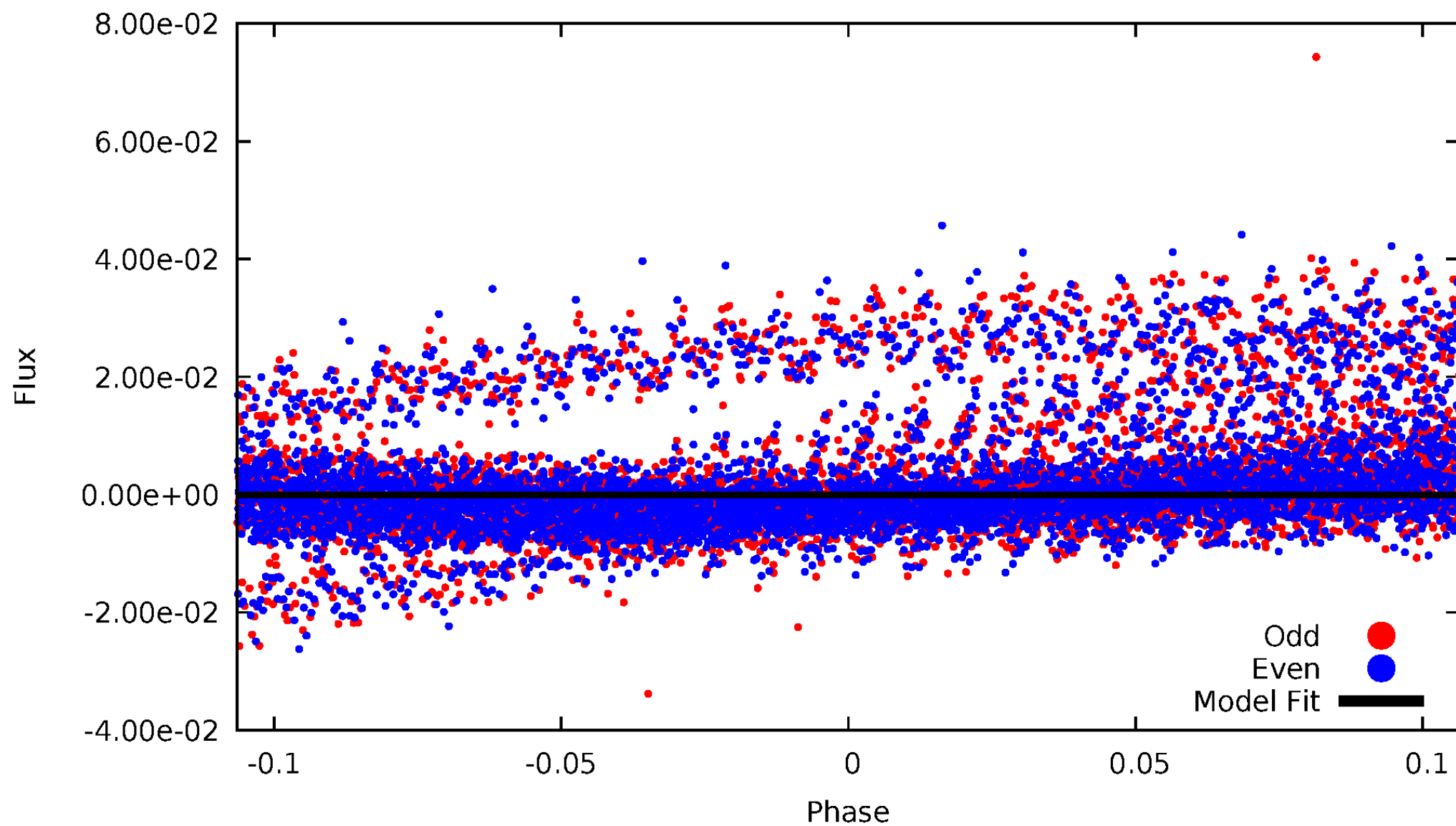
DV Odd/Even

TCE 005115335-01

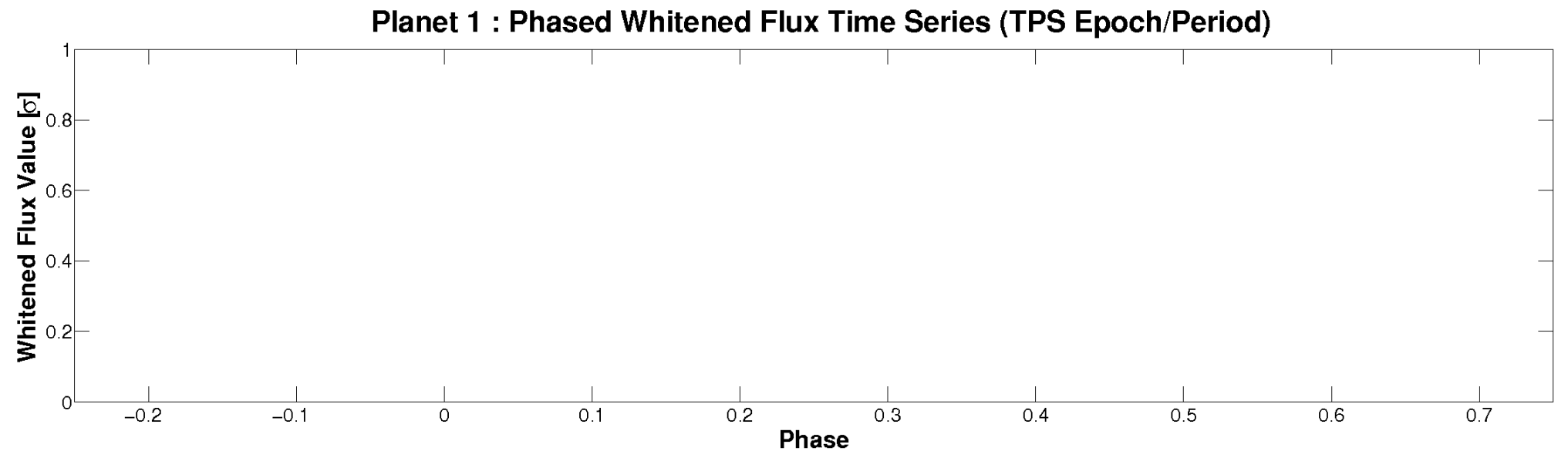
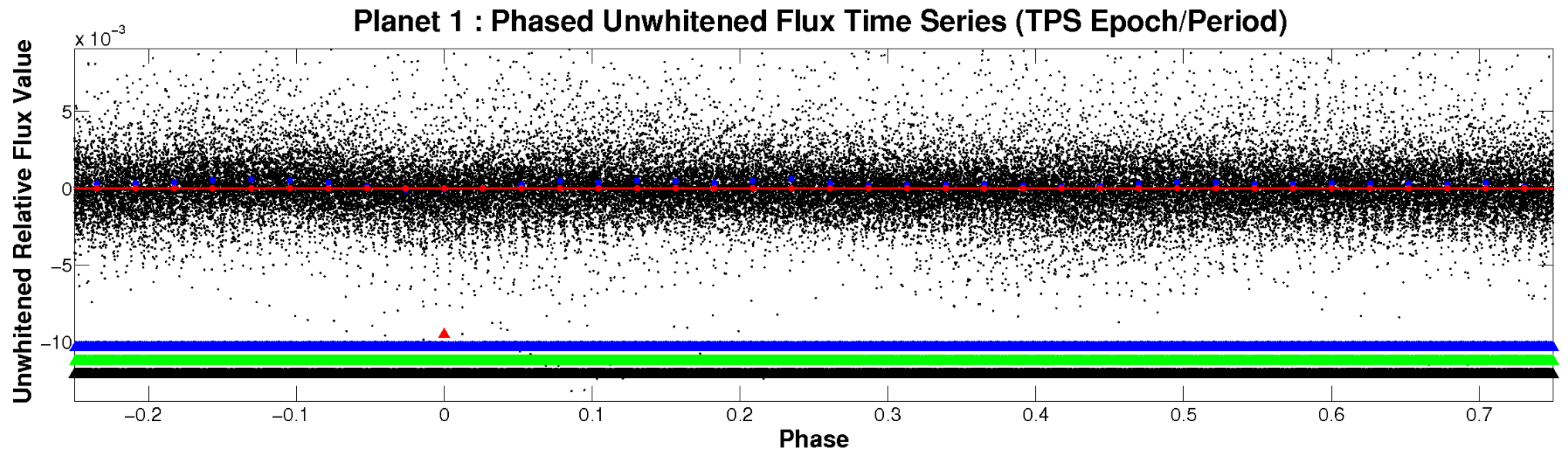


ALT Odd/Even

TCE 005115335-01

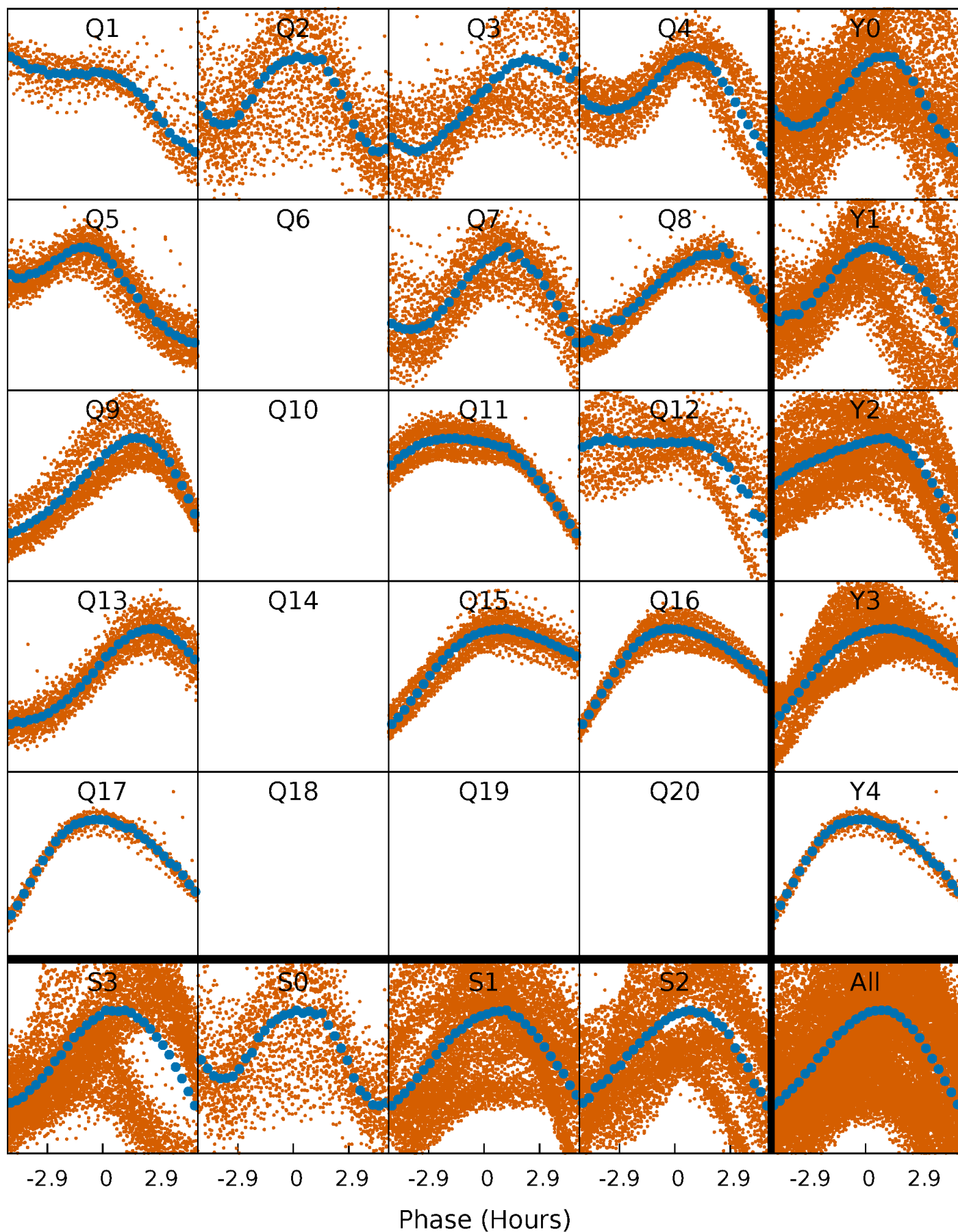


Non-Whitened Vs. Whitened Light Curve



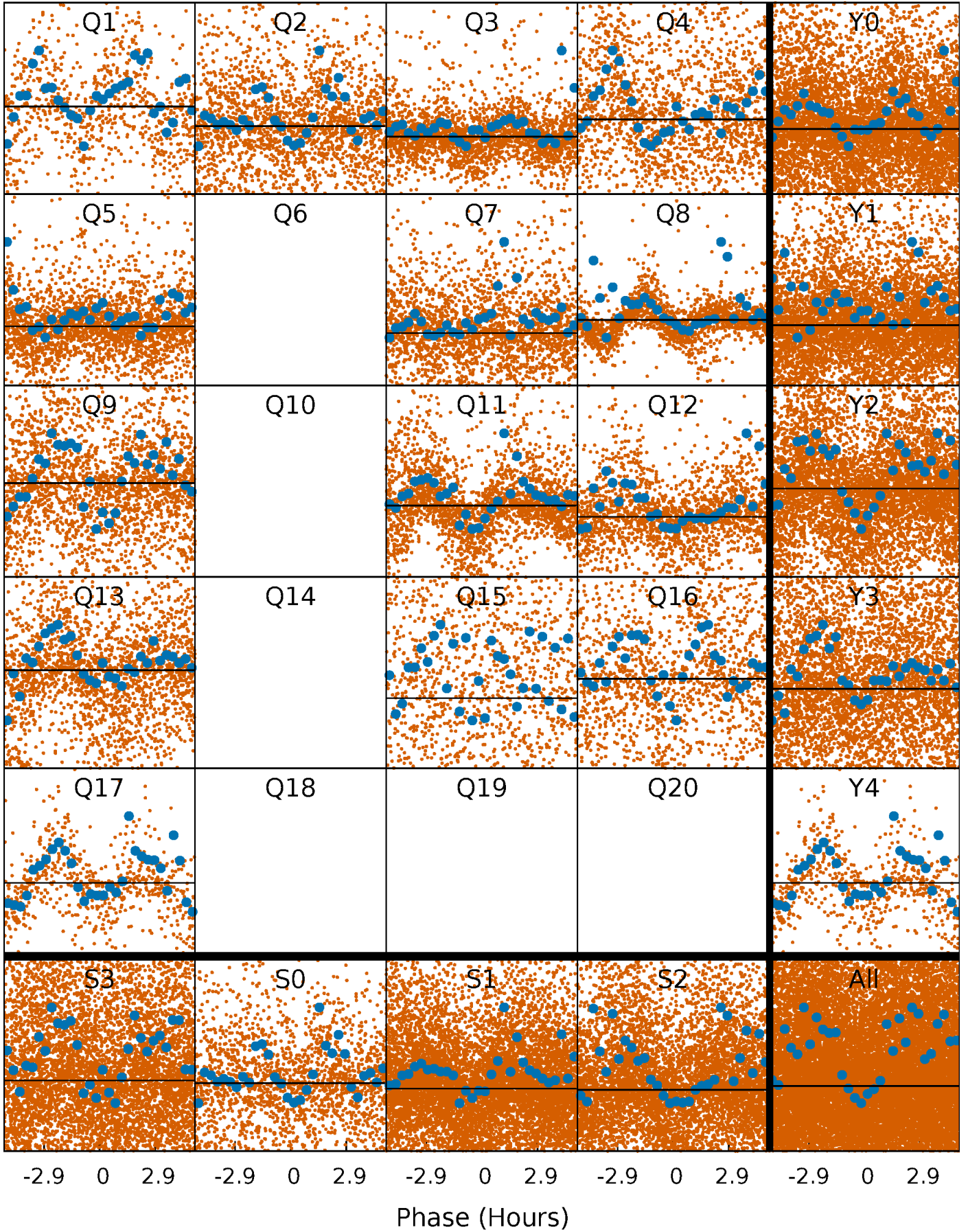
PDC Quarter-Phased Transit Curves

TCE 005115335-01 P= 0.783192 Days $T_0=131.849536$ (BKJD)



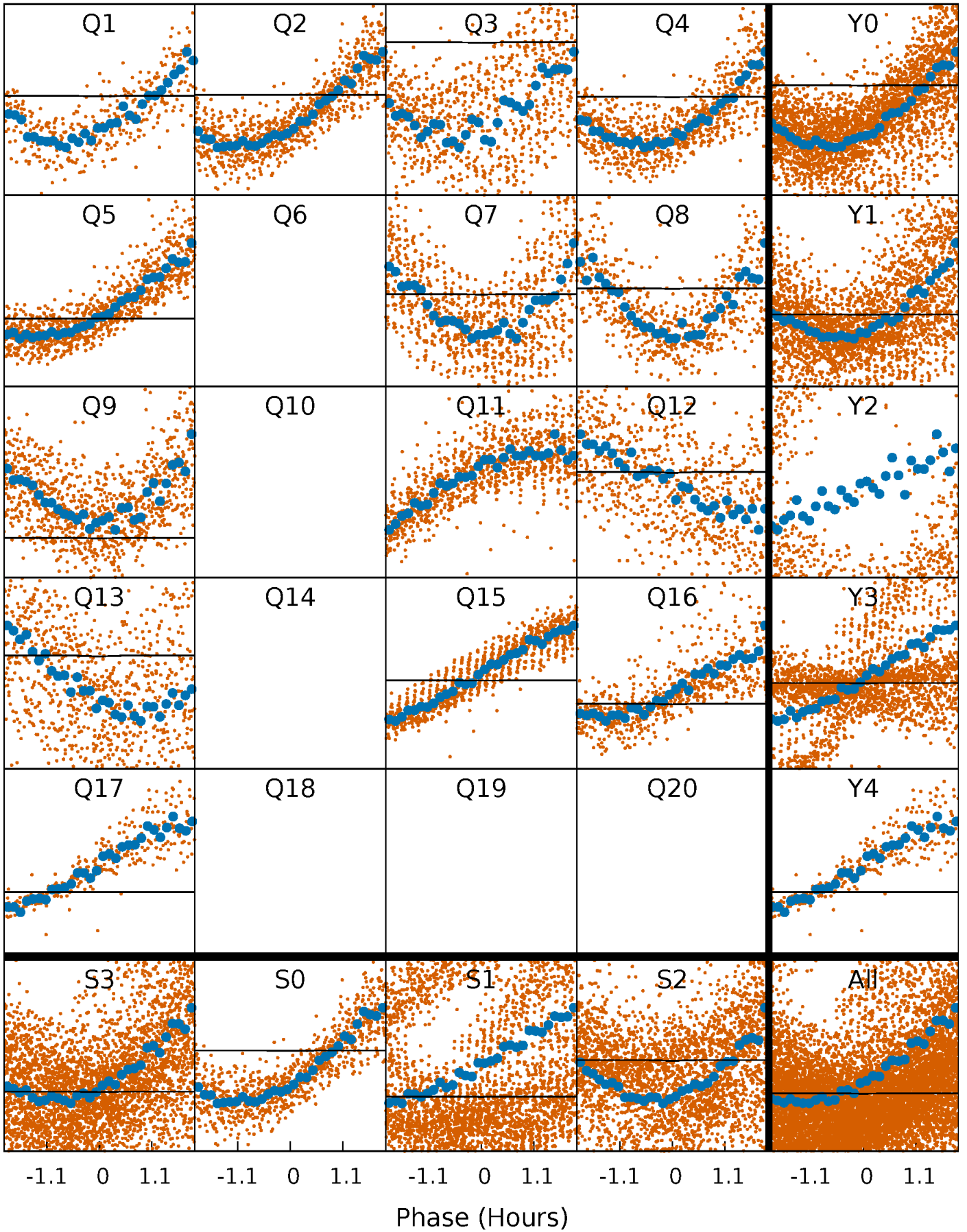
DV Quarter-Phased Transit Curves

TCE 005115335-01 P= 0.783192 Days $T_0=131.849536$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

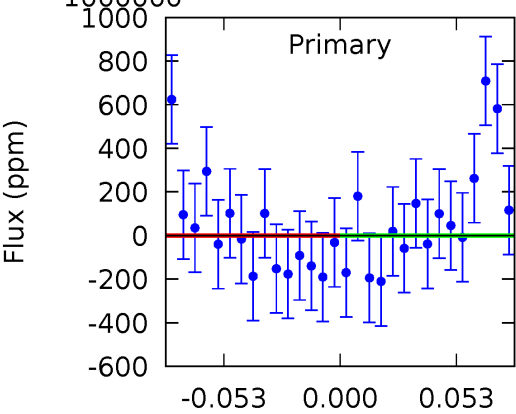
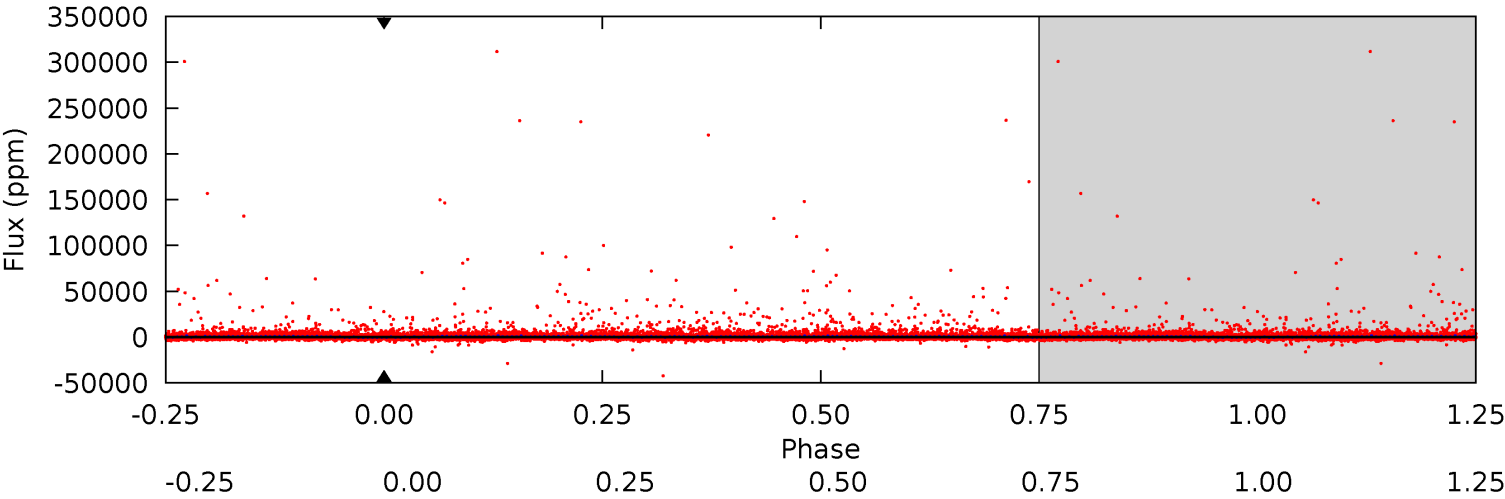
TCE 005115335-01 P= 0.783192 Days $T_0=131.703342$ (BKJD)



DV Model-Shift Uniqueness Test

005115335-01, P = 0.783192 Days, E = 131.066344 Days

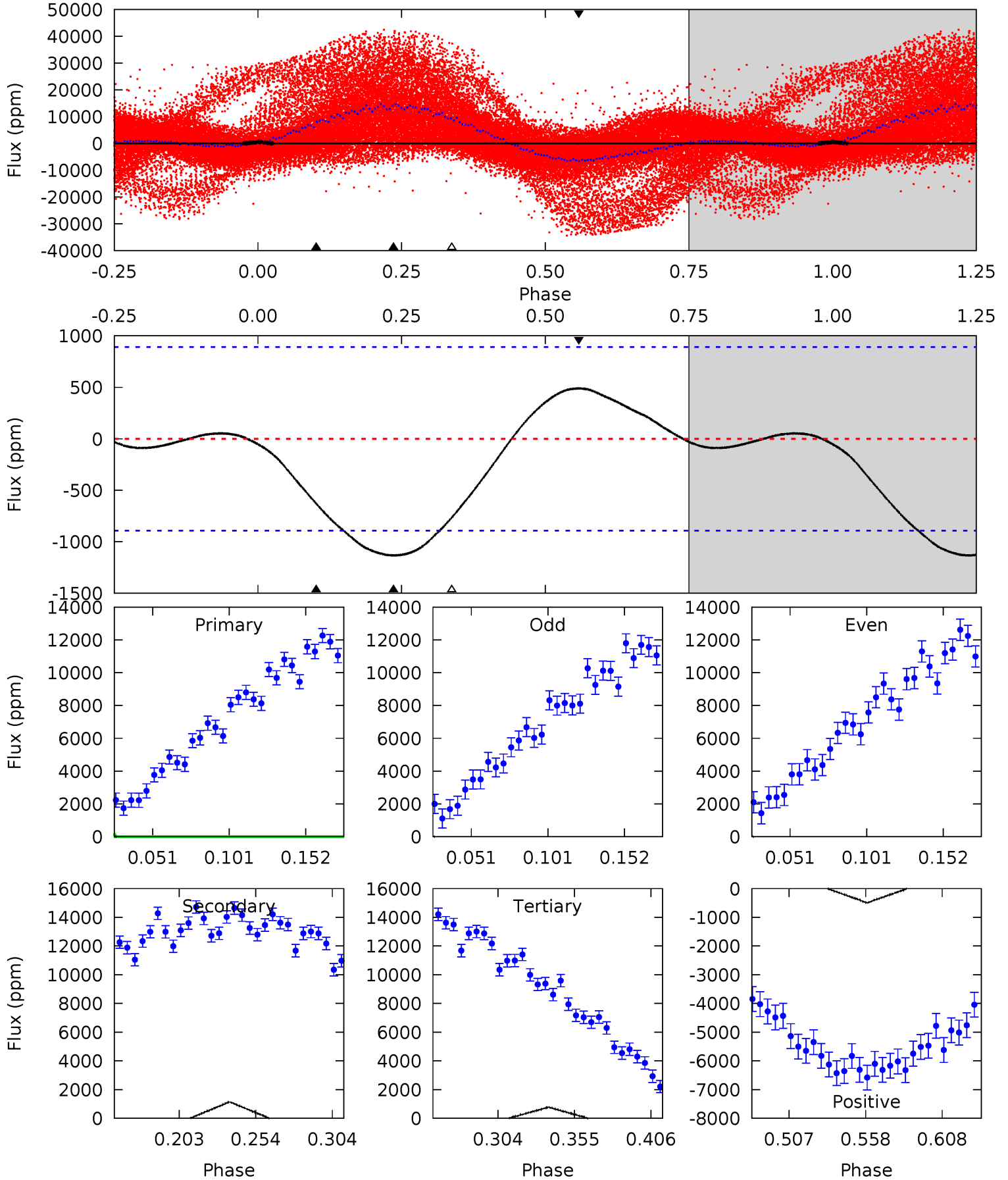
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005115335-01, P = 0.783192 Days, E = 130.920150 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.32	5.98	4.04	2.58	4.71	1.95	2.11	-0.72	0.74	1.94	3.40	0.74	-0.72	0.30	0.27



Stellar Parameters For KIC 005115335

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4495^{+159}_{-159}	$4.561^{+0.059}_{-0.023}$	$0.380^{+0.050}_{-0.300}$	$0.747^{+0.026}_{-0.066}$	$0.741^{+0.043}_{-0.048}$	$2.502^{+0.637}_{-0.195}$
	+4%/-4%	+1%/-1%	+13%/-79%	+3%/-9%	+6%/-6%	+25%/-8%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005115335-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$6.81^{+6.44}_{-4.57}$	1937^{+73}_{-75}	3660^{+7450}_{-13607}	$7.730^{+551.812}_{-385.665}$
Alt.	-1133 ± 190	$5.74^{+5.30}_{-3.98}$	1938^{+73}_{-78}	3406^{+1949}_{-707}	$4.265^{+37.846}_{-3.202}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

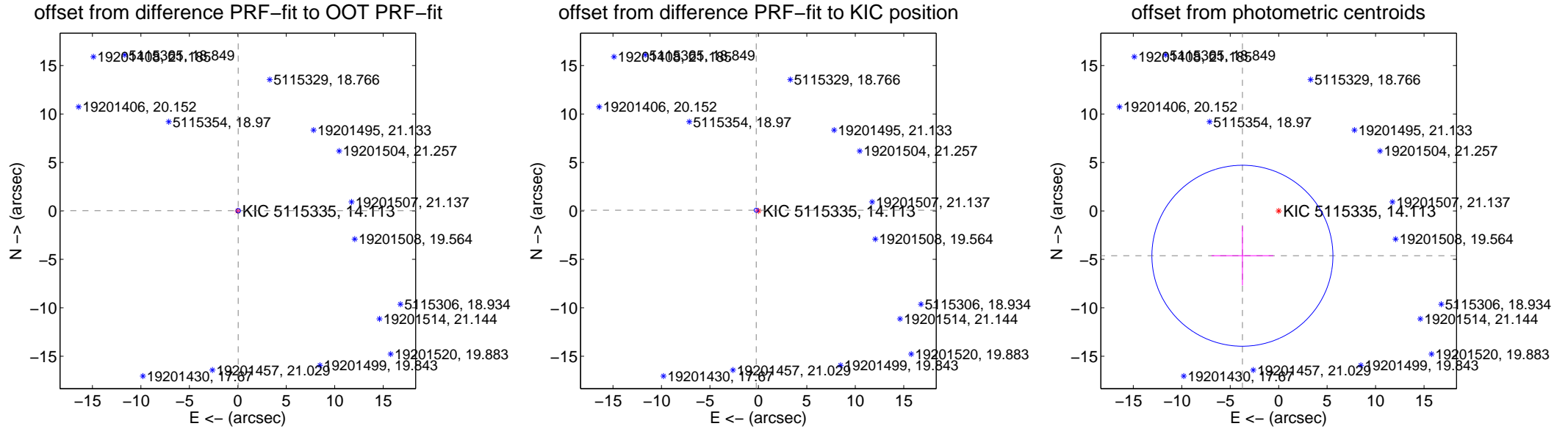
DV Centroid Data

Supplemental centroid analysis for 005115335-01. Kepler magnitude: 14.11. Transit SNR -1.00

There are 10 quarters with good PRF difference image offsets

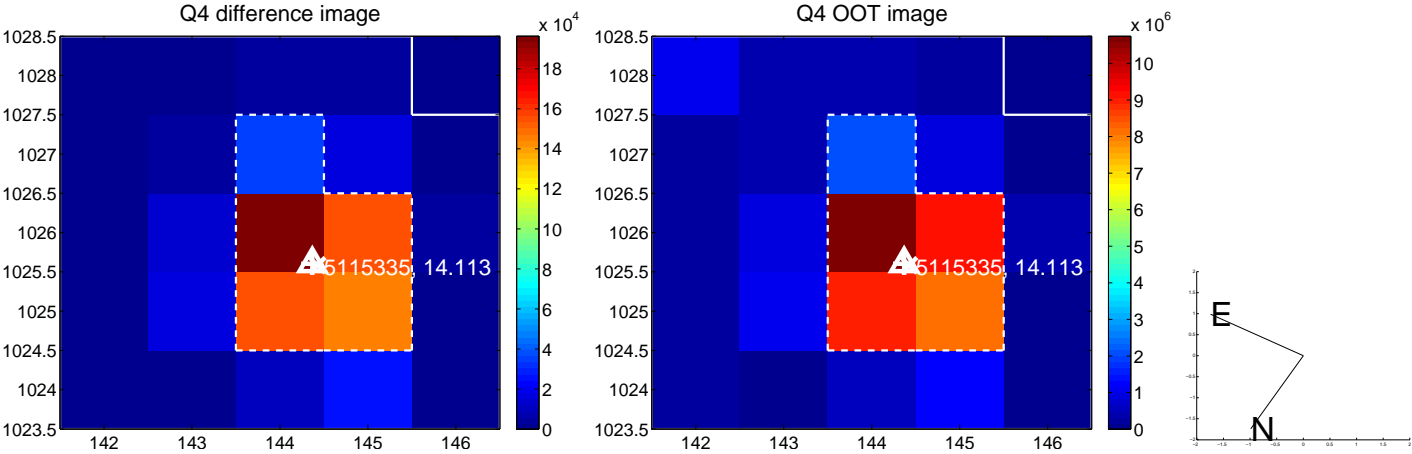
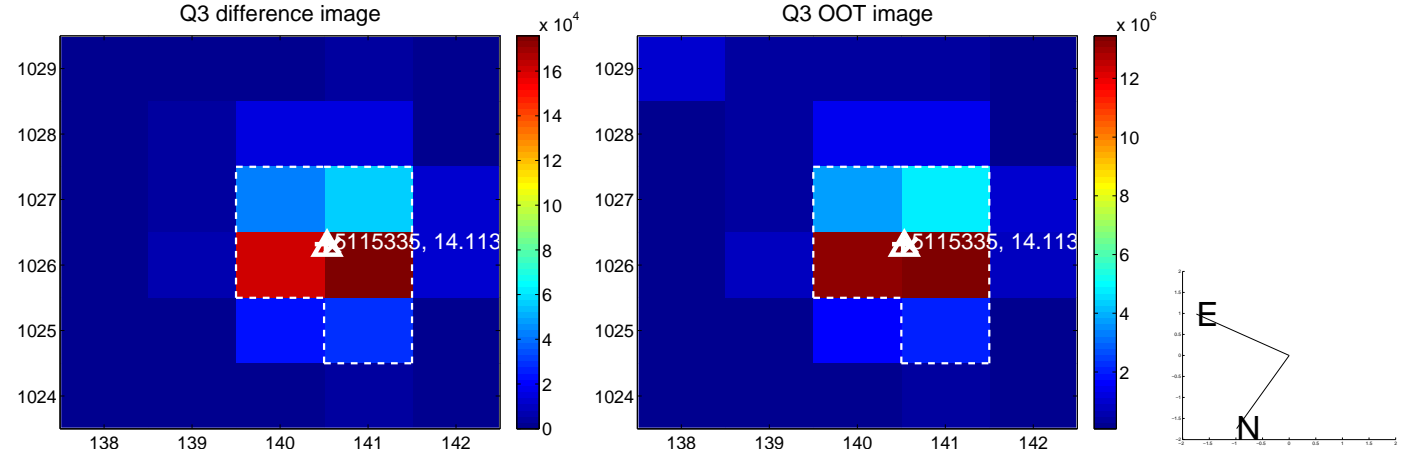
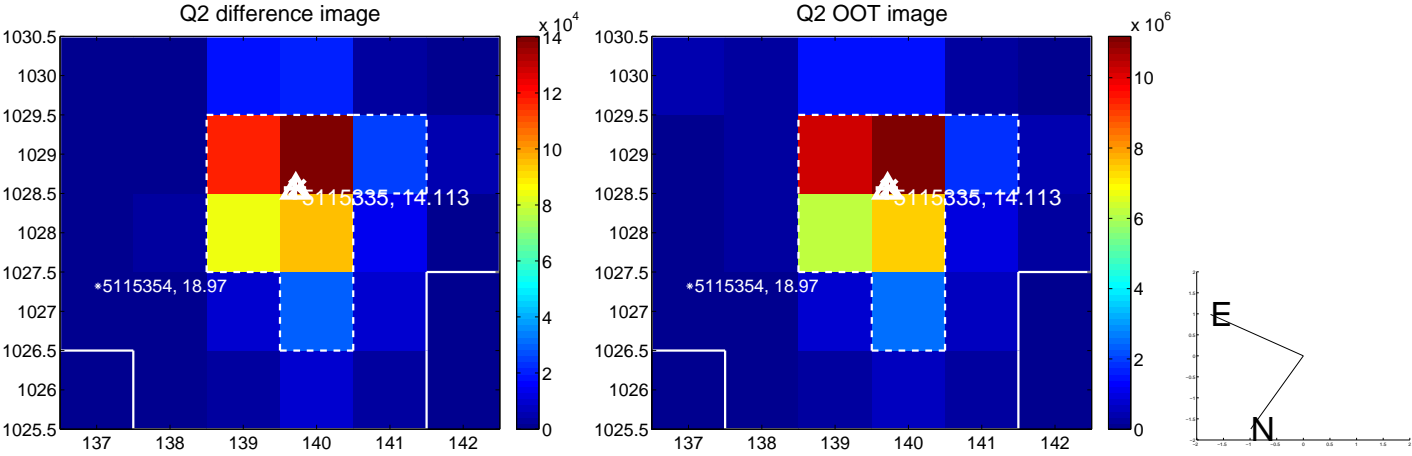
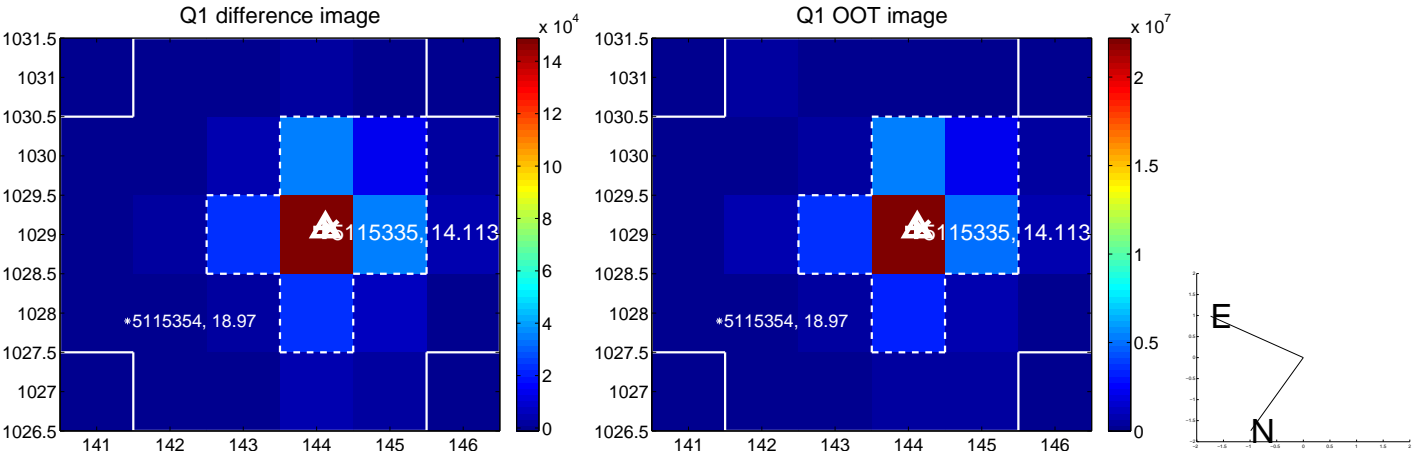
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.045 ± 0.078	0.57	-0.041 ± 0.074	0.018 ± 0.074
PRF-fit source offset from KIC position	0.229 ± 0.072	3.17	0.218 ± 0.075	0.071 ± 0.074
photometric centroid source offset	5.95 ± 3.11	1.91	3.74 ± 3.19	-4.63 ± 3.06

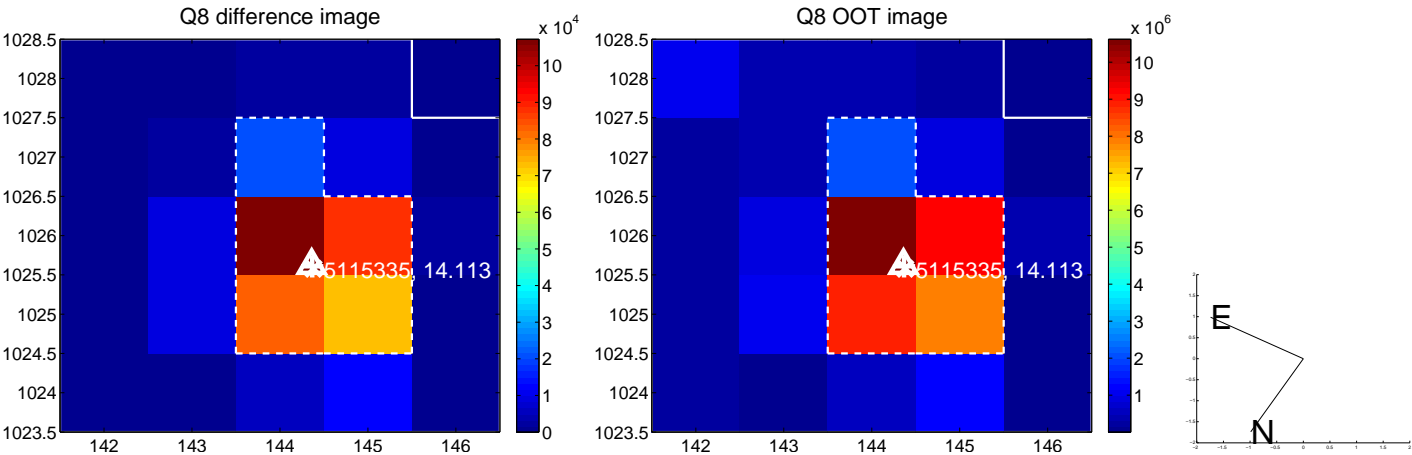
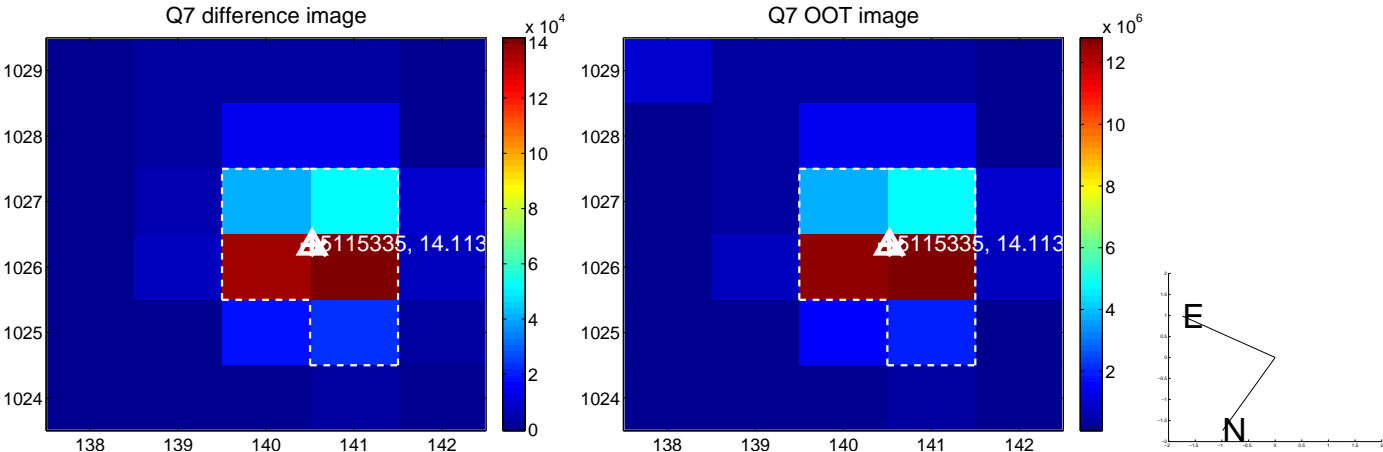
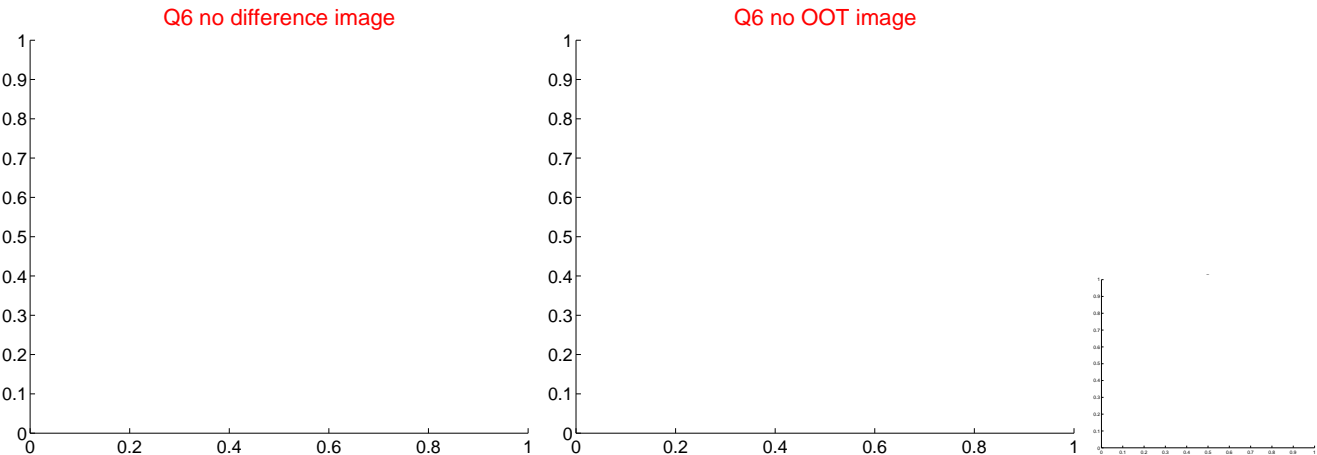
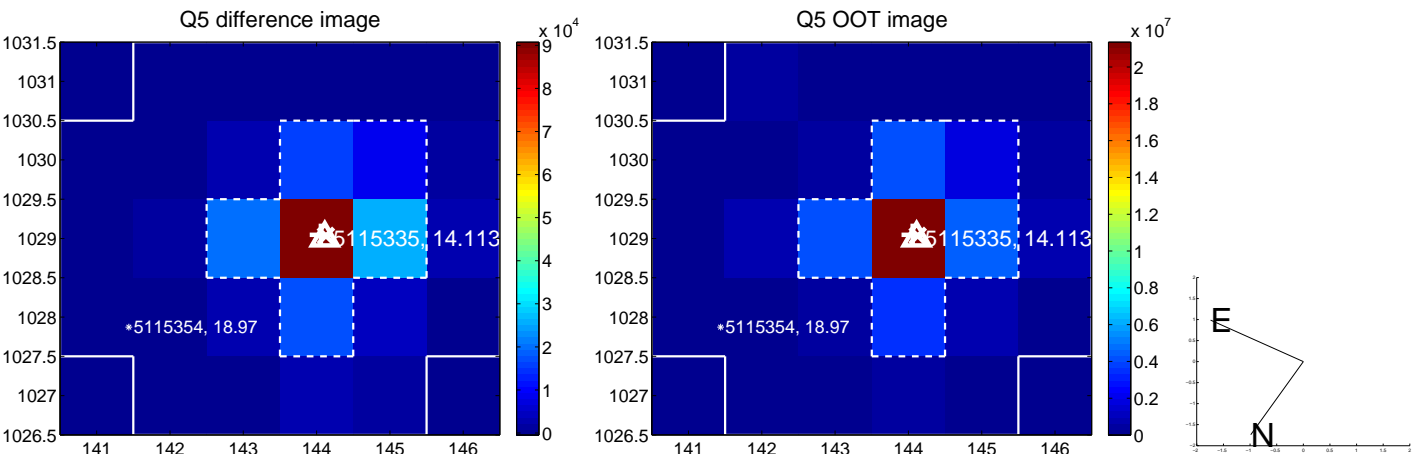


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

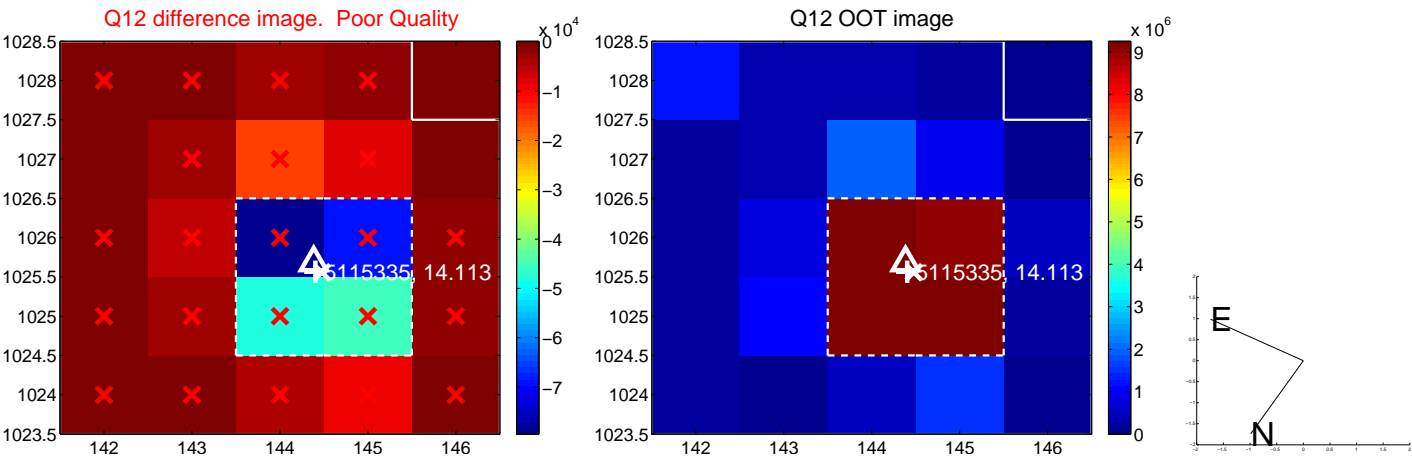
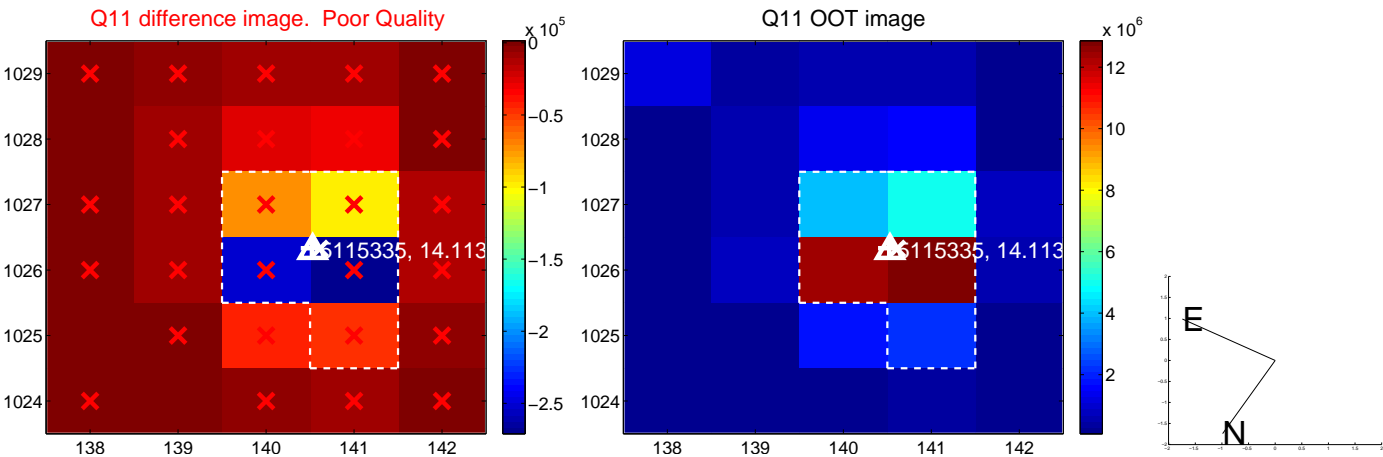
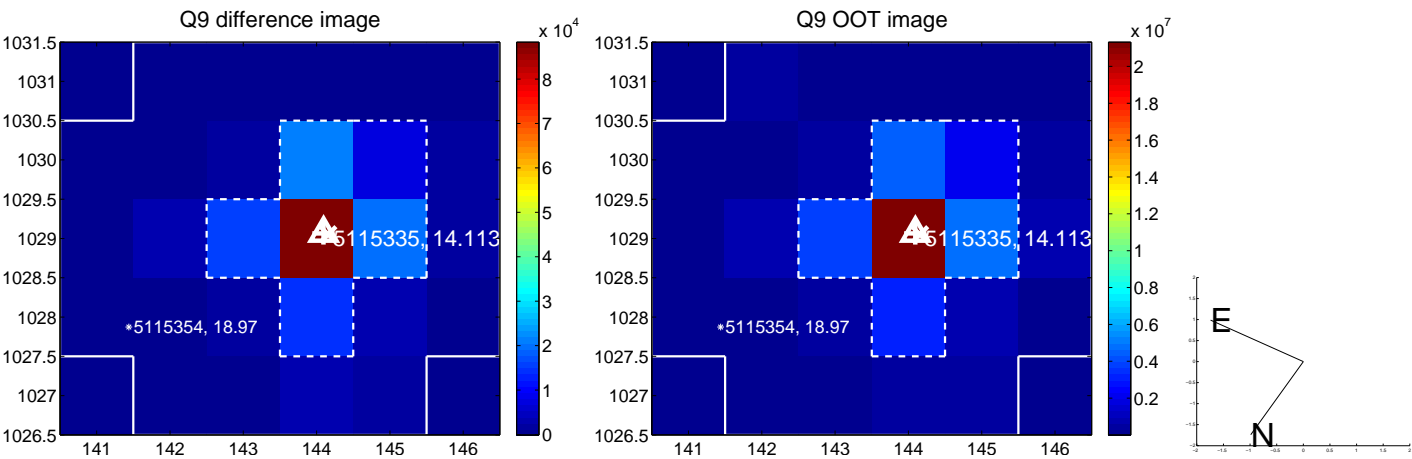
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



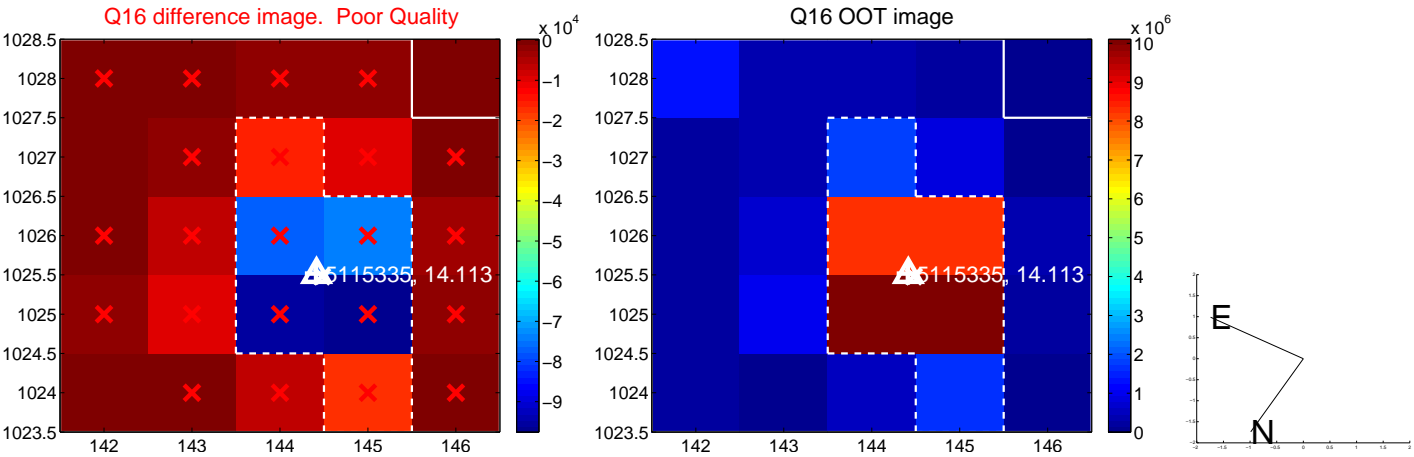
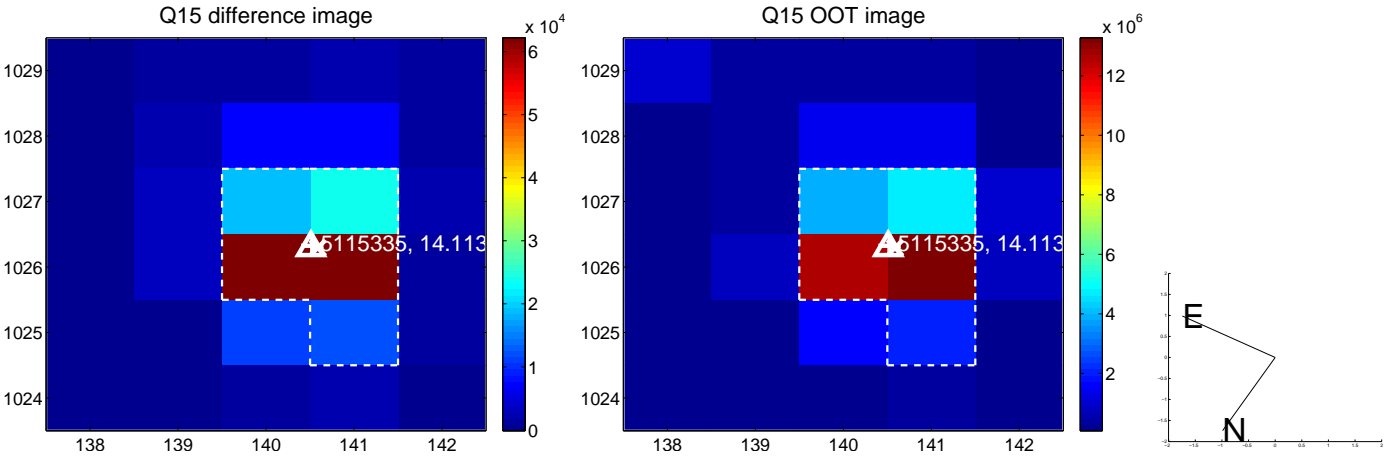
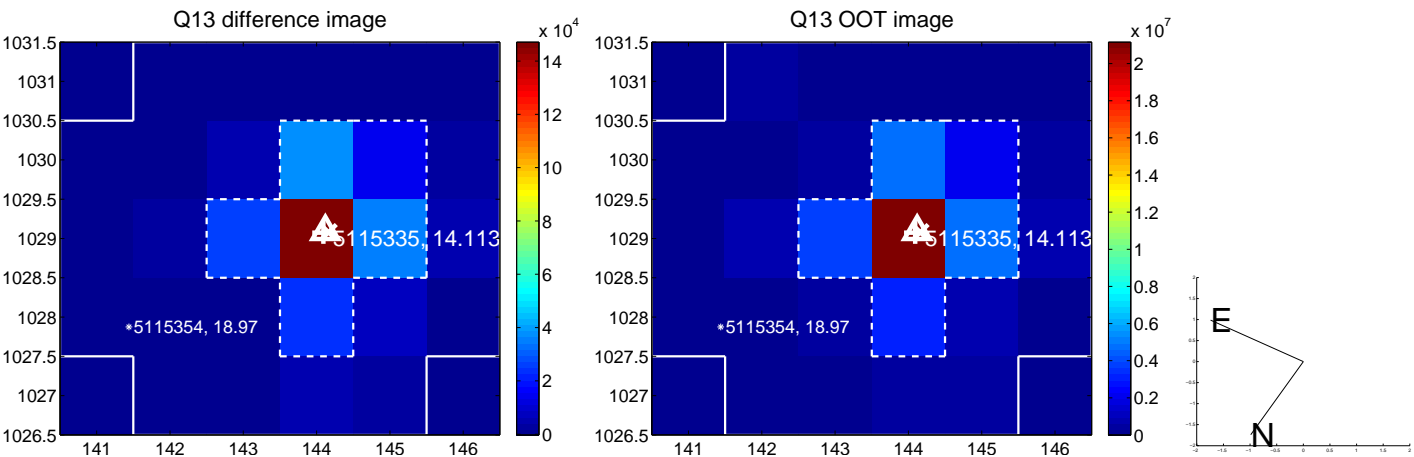
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



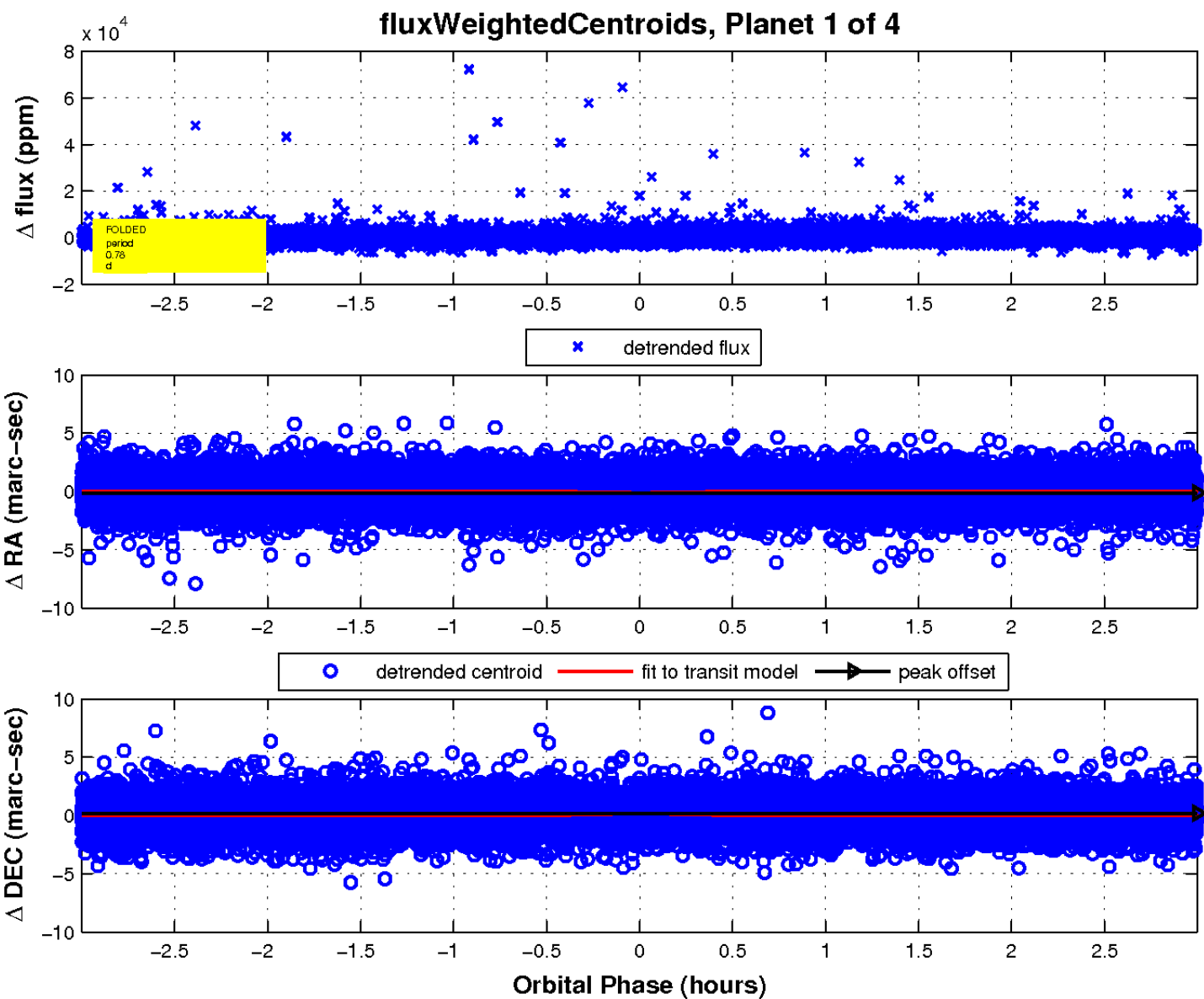
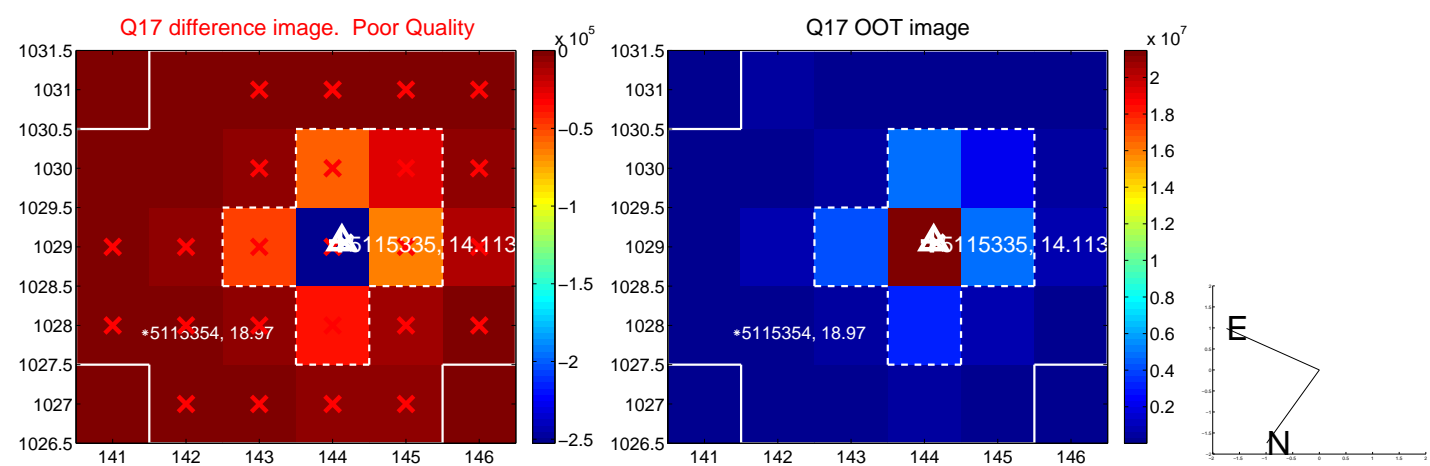
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



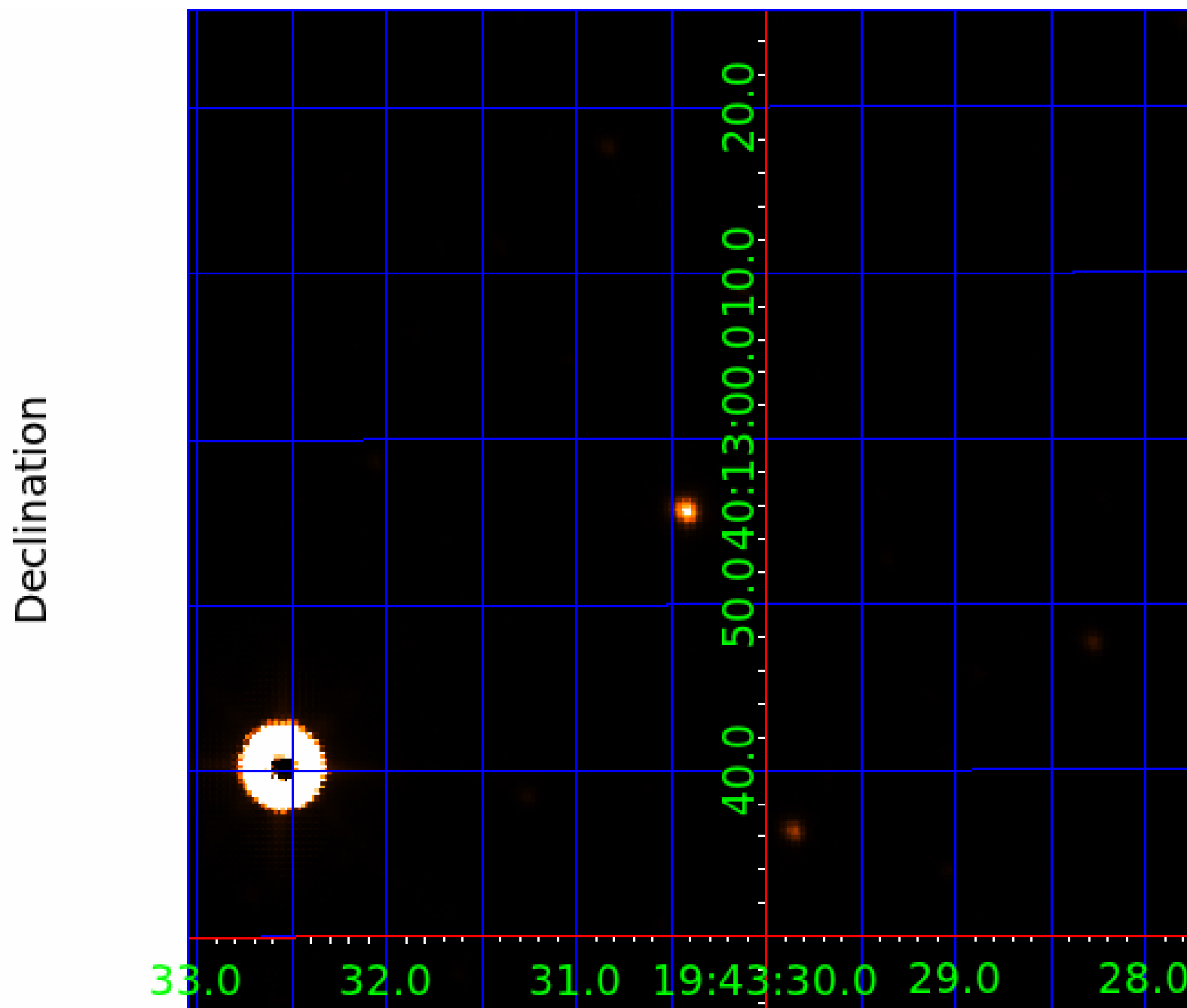
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image



KIC 005115335

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005115335-01	OBS	No	0.783192	131.849536	1440.6	2.500	12.4	-1.0	0.75	4495	2.70	901.30
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005115335-03	OBS	No	0.782575	132.065633	434.9	4.407	9.3	7.5	0.75	4495	1.48	902.25
005115335-04	OBS	No	0.780326	132.189119	640.4	1.500	7.1	-1.0	0.75	4495	1.81	905.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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005115335-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005115335-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005115335-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

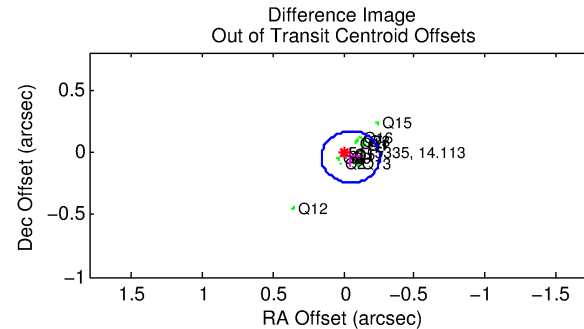
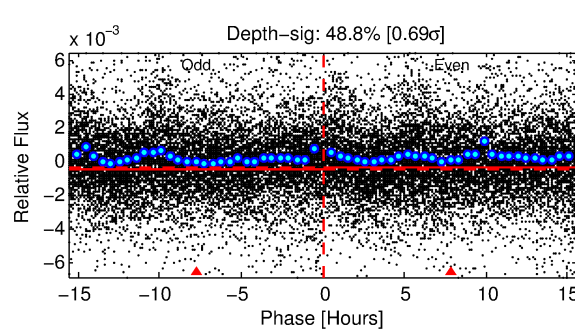
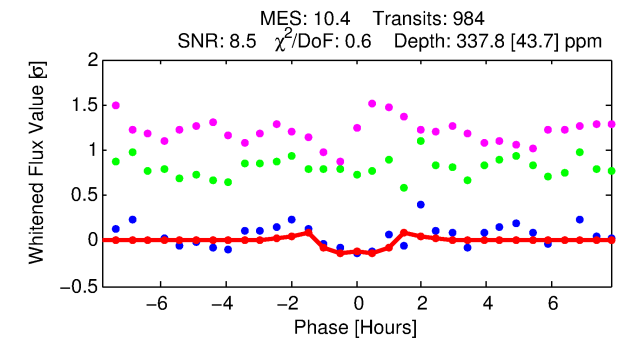
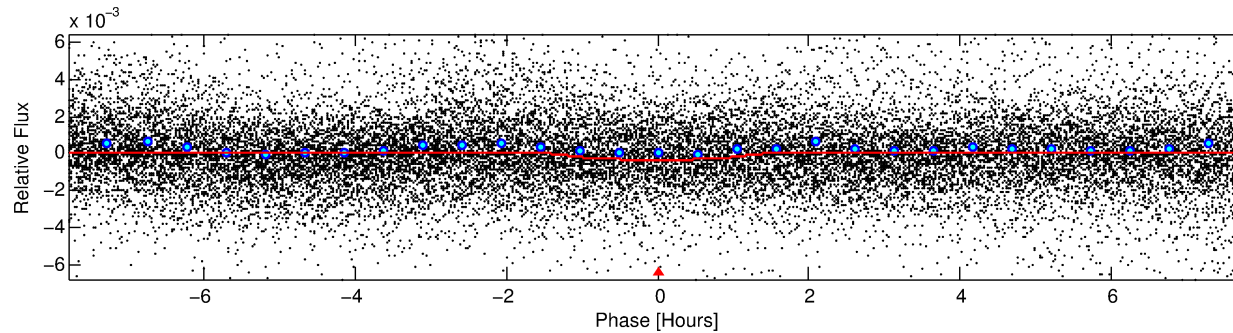
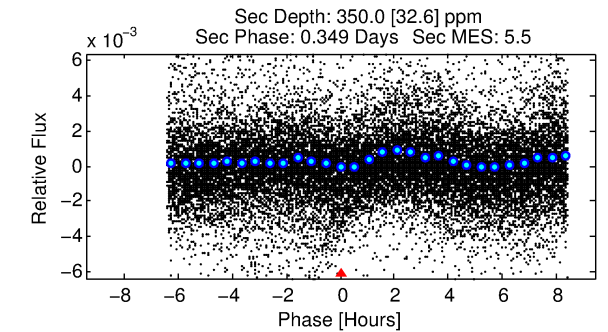
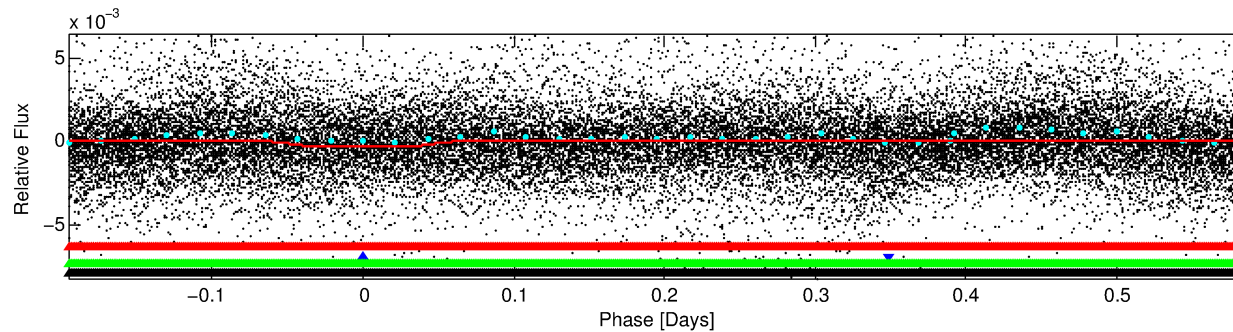
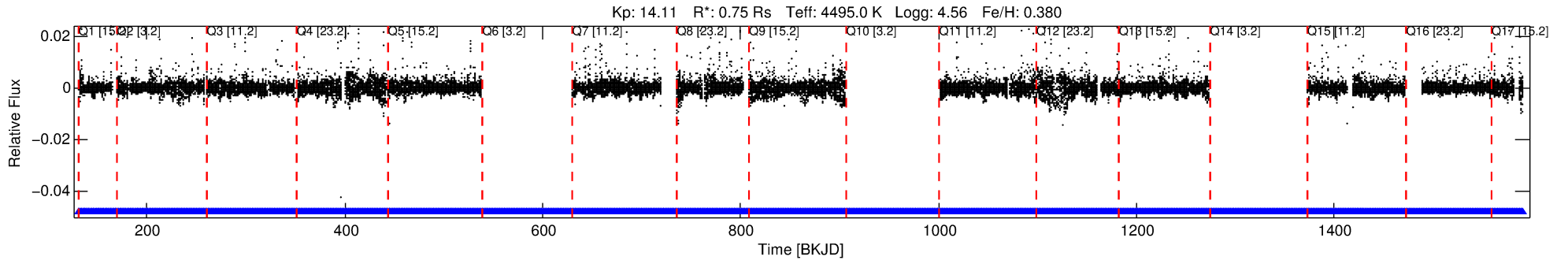
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005115335-02

No Significant Match Found

DV One-Page Summary

KIC: 5115335 Candidate: 2 of 4 Period: 0.782 d



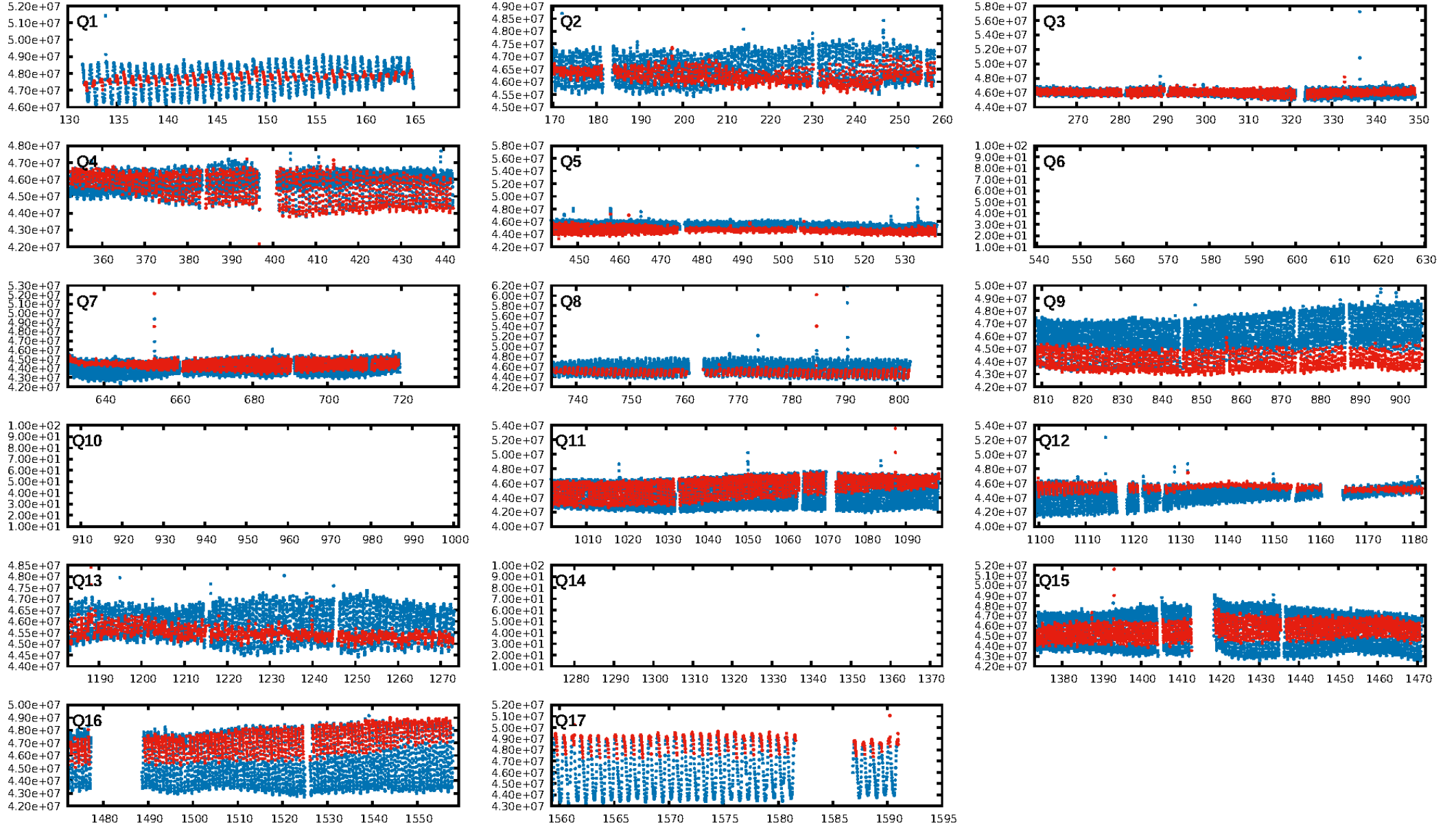
DV Fit Results:

Period = 0.78195 [0.00001] d
Epoch = 131.8453 [0.0018] BKJD
Rp/R* = 0.0207 [0.0069]
a/R* = 1.48 [0.91]
b = 0.89 [0.27]
Seff = 903.21 [160.79]
Teq = 1398 [62] K
Rp = 1.69 [0.58] Re
a = 0.0150 [0.0011] AU
Ag = 15.32 [10.44] [1.37σ]
Teffp = 4276 [735] K [3.90σ]

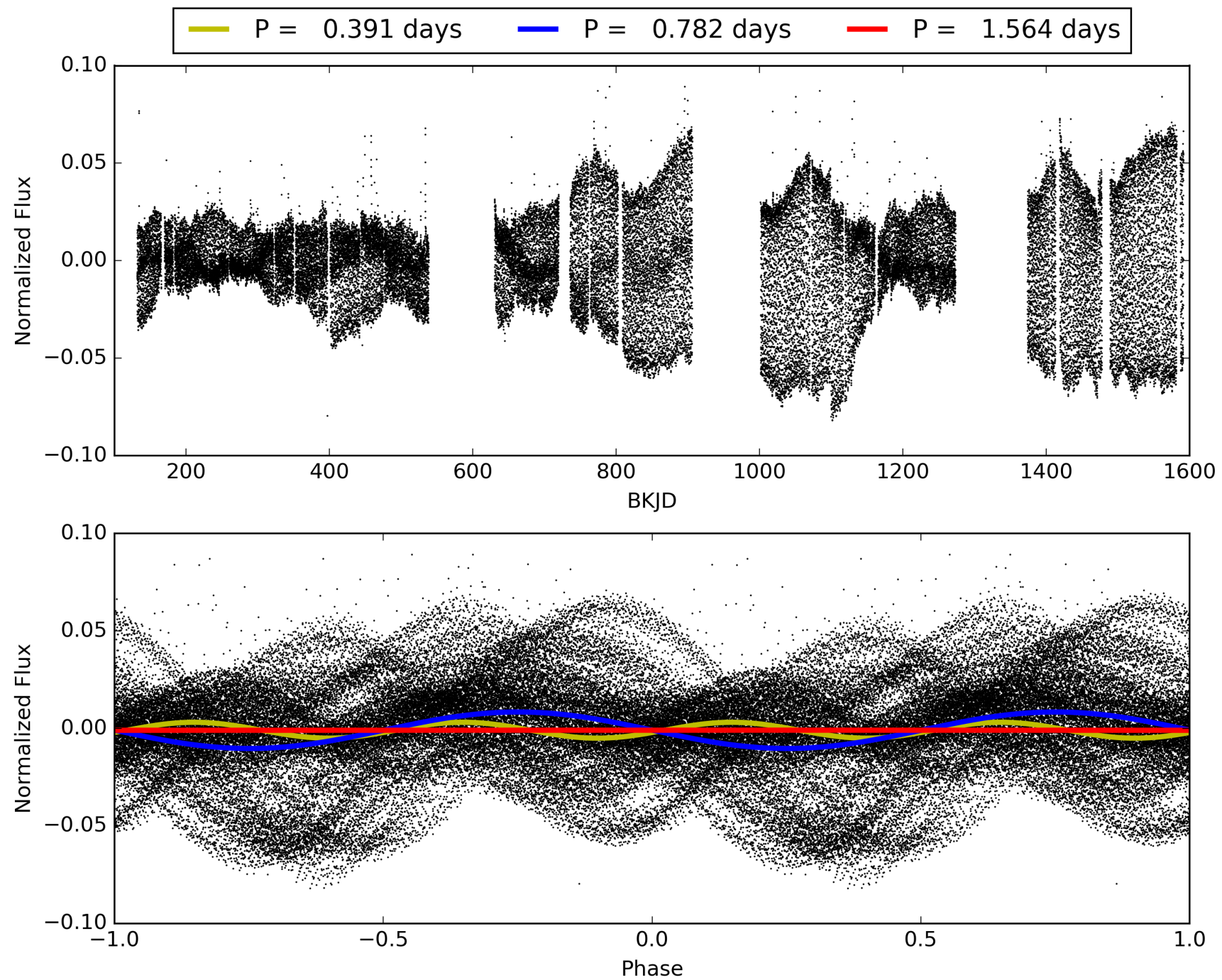
DV Diagnostic Results:

ShortPeriod-sig: 1.0% [0.01σ]
LongPeriod-sig: 0.2% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [984/984]
GhostDiagnostic-chr: 2.318
Centroid-sig: 10.2%
Centroid-so: 0.426 arcsec [2.61σ]
OotOffset-rm: 0.063 arcsec [0.91σ]
KicOffset-rm: 0.209 arcsec [2.87σ]
OotOffset-st: 1/4/3/5 [13]
KicOffset-st: 1/4/3/5 [13]
DiffImageQuality-fgm: 0.46 [6/13]
DiffImageOverlap-fno: 0.00 [0/14]

TCE 005115335-02, PDC Light Curves

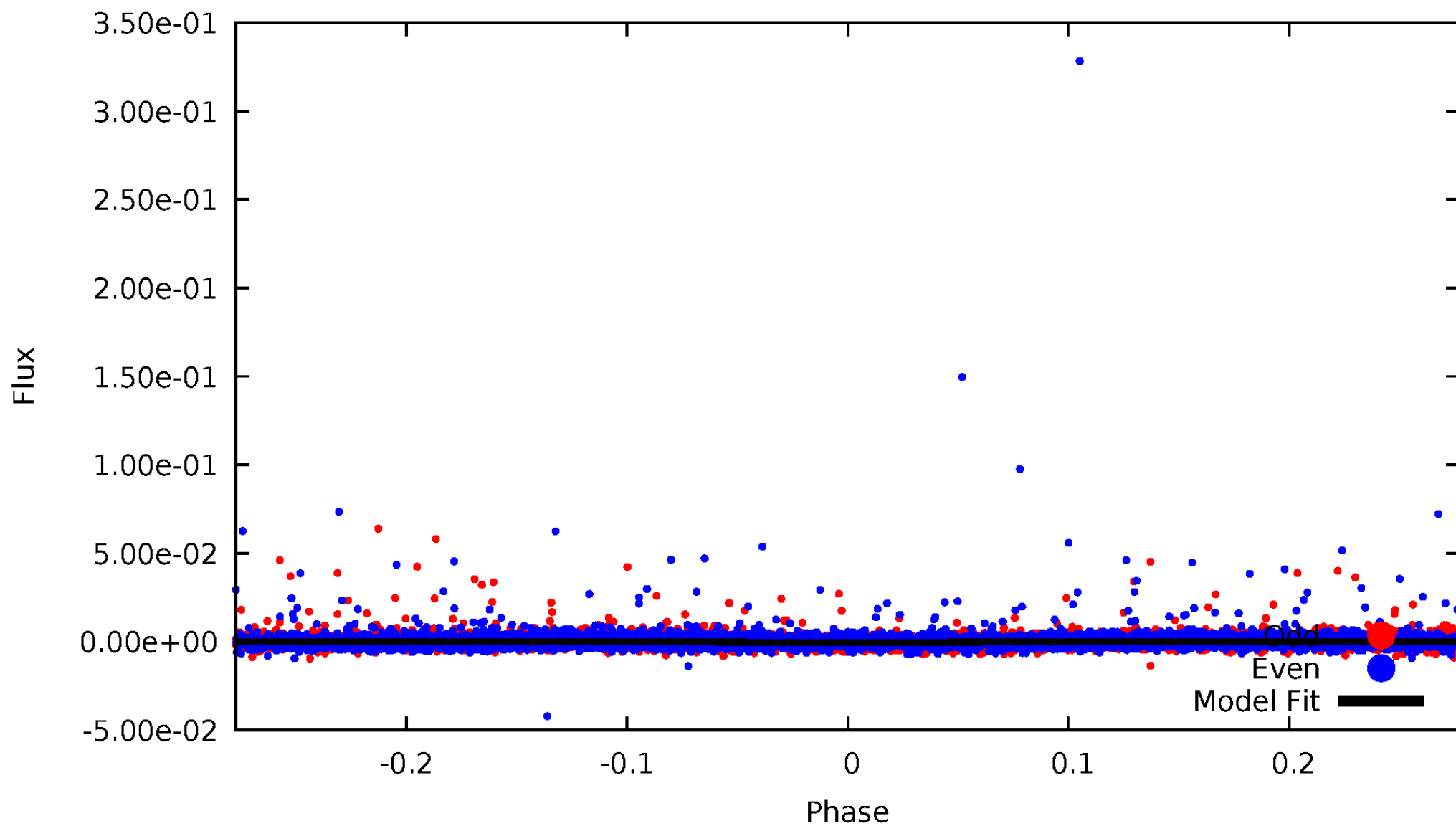


TCE 005115335-02



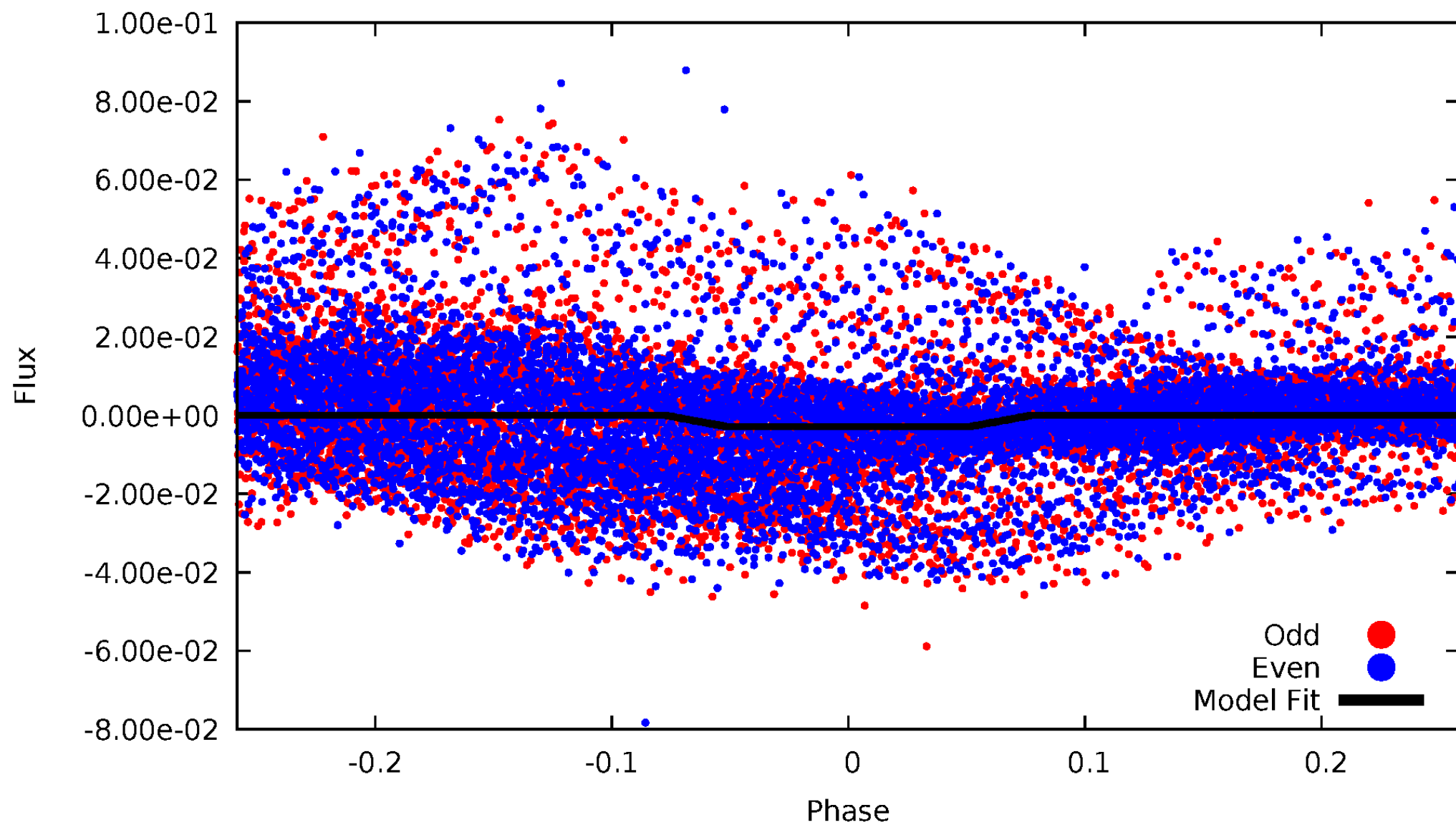
DV Odd/Even

TCE 005115335-02



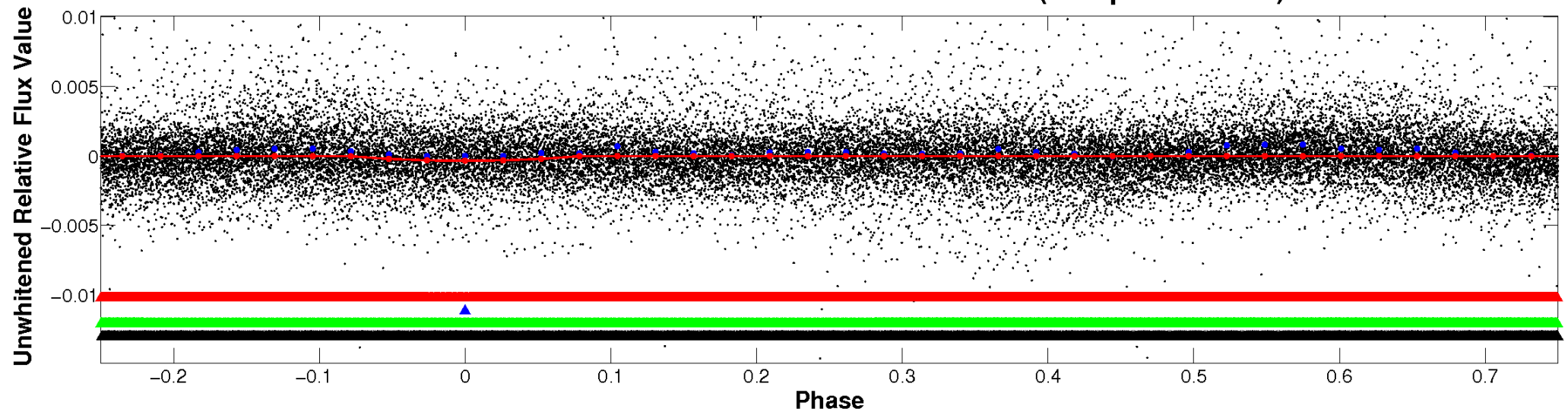
ALT Odd/Even

TCE 005115335-02

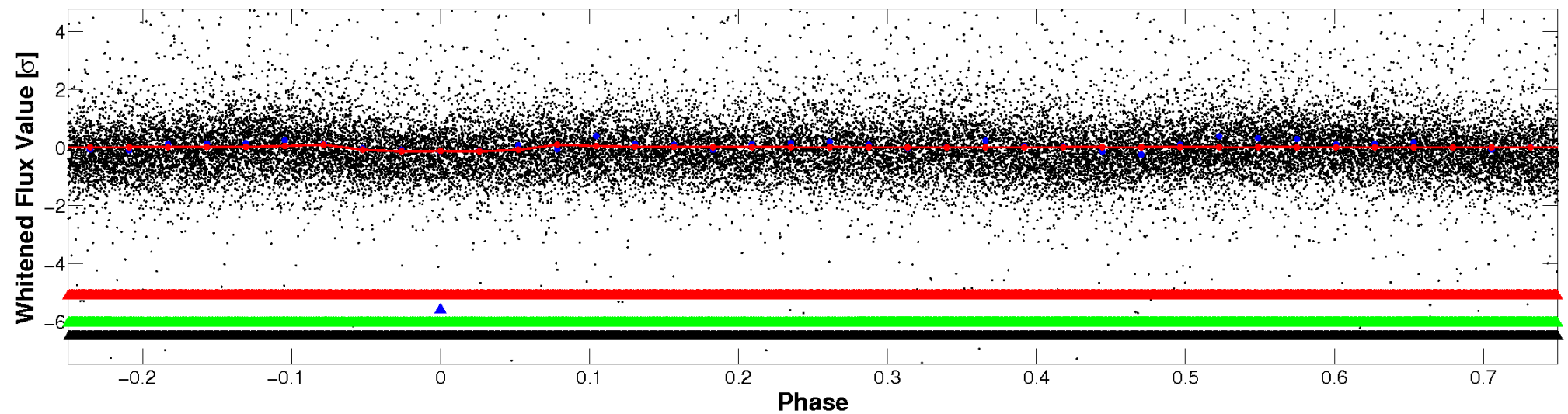


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

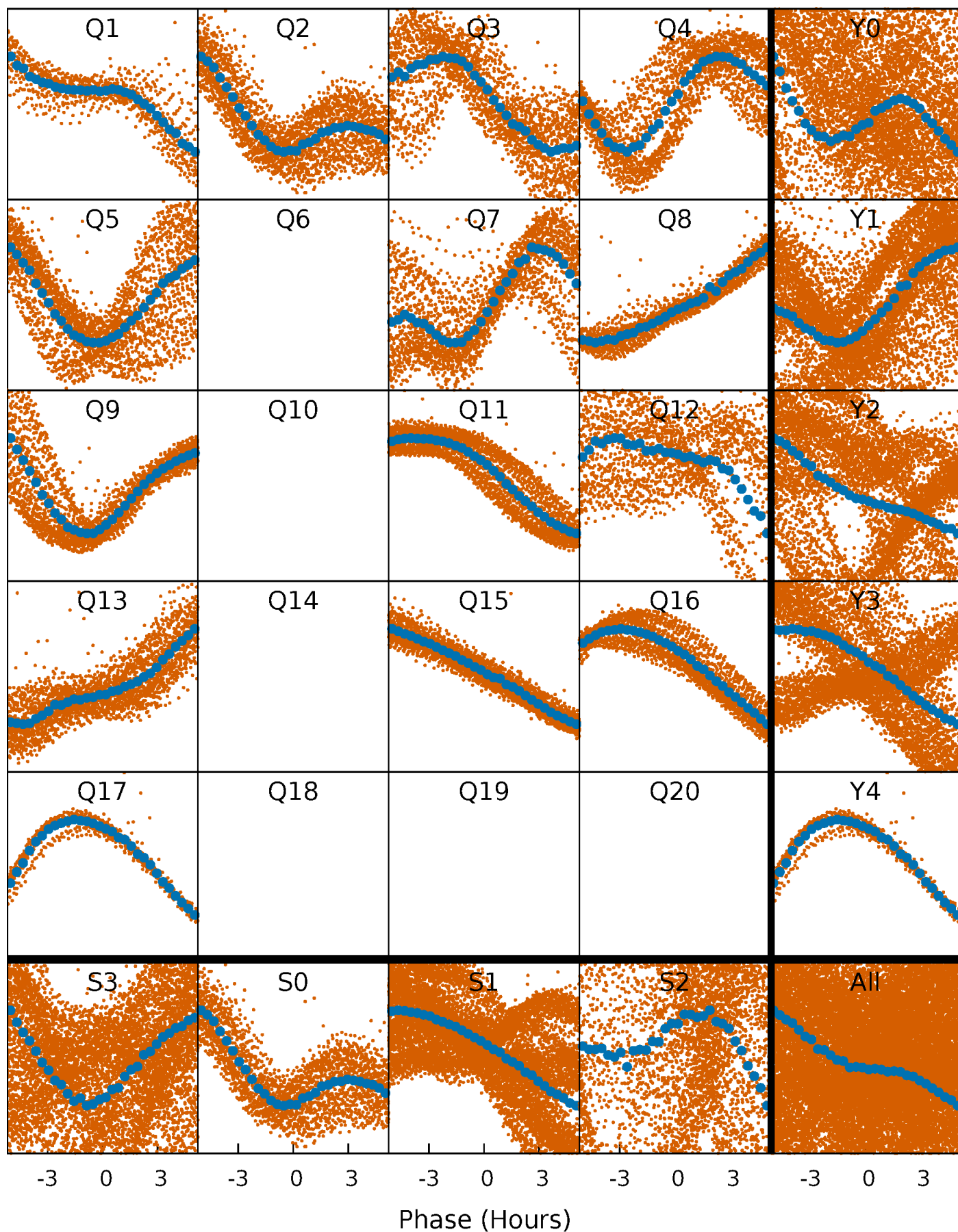


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



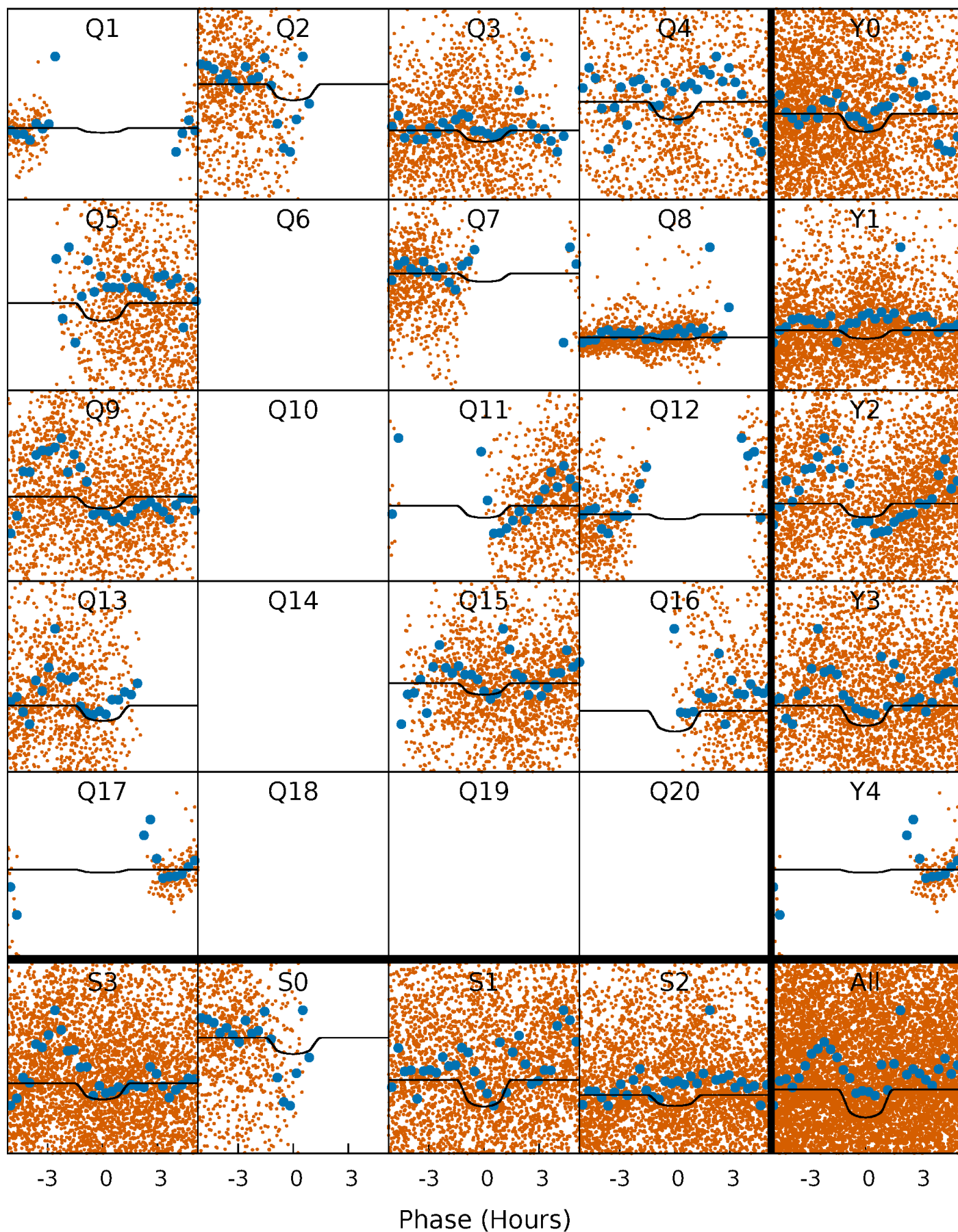
PDC Quarter-Phased Transit Curves

TCE 005115335-02 P= 0.781946 Days $T_0=131.845337$ (BKJD)



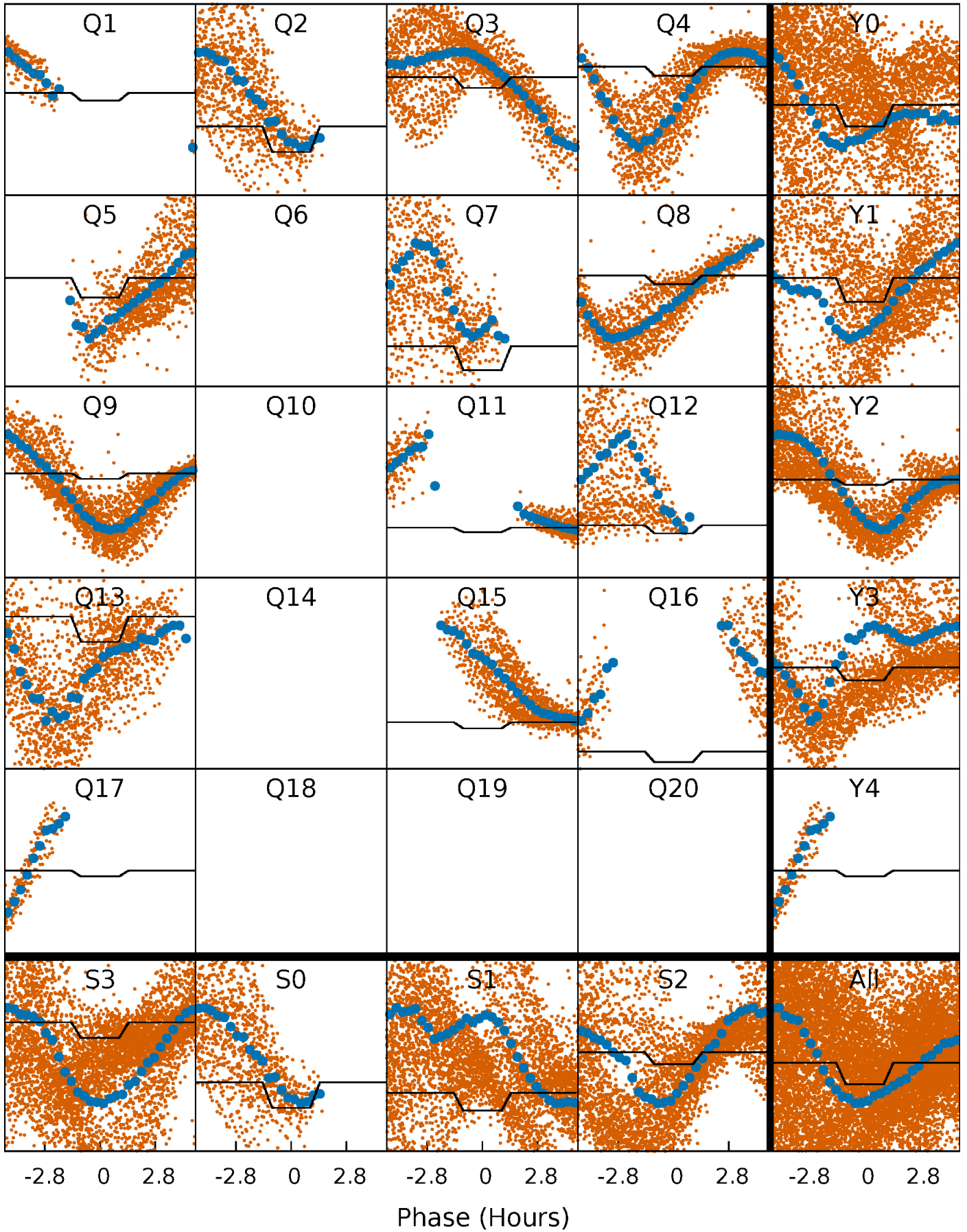
DV Quarter-Phased Transit Curves

TCE 005115335-02 P= 0.781946 Days $T_0=131.845337$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

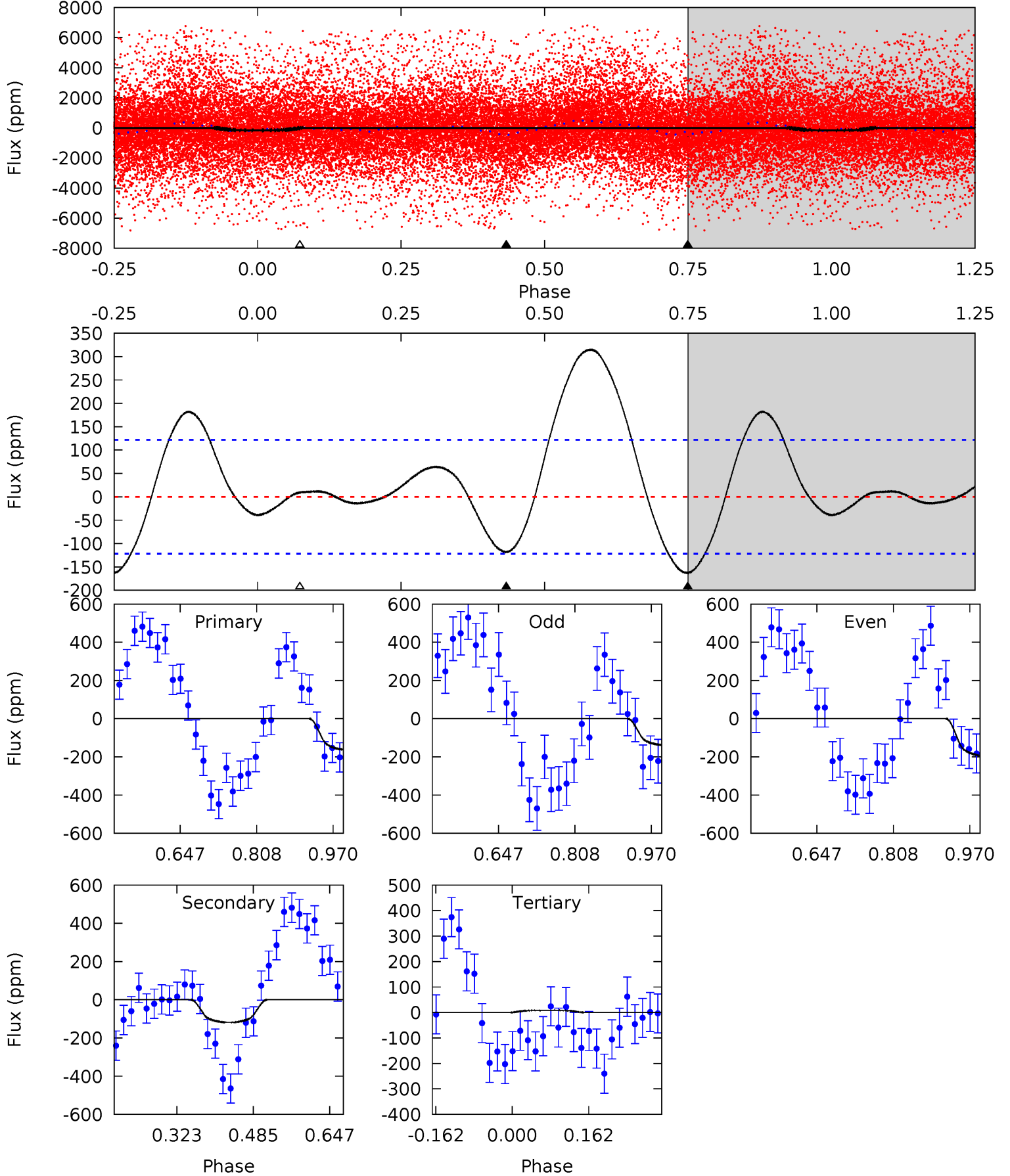
TCE 005115335-02 P= 0.781897 Days $T_0=131.822747$ (BKJD)



DV Model-Shift Uniqueness Test

005115335-02, P = 0.781946 Days, E = 131.063391 Days

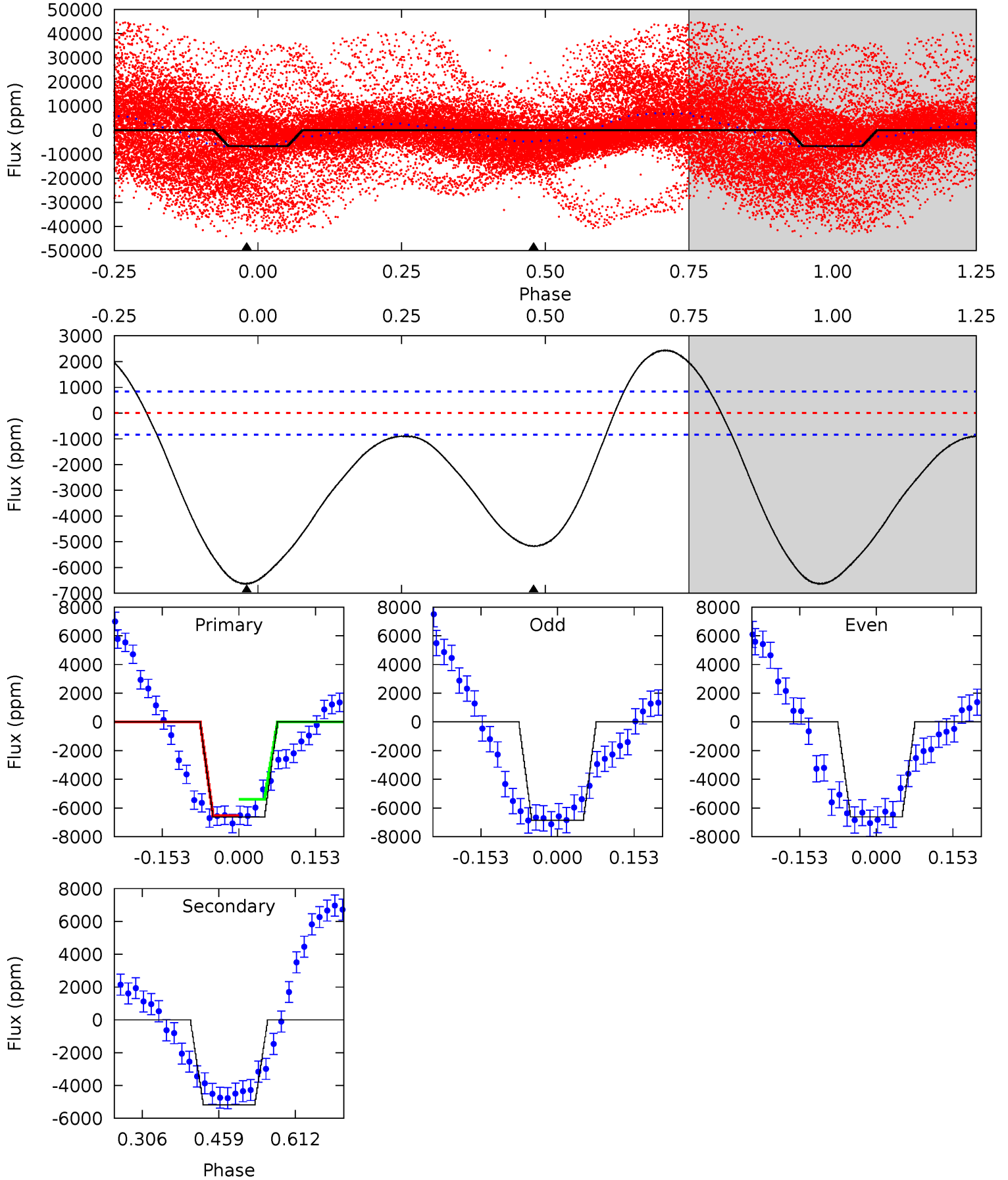
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.96	4.34	-0.32	0	4.46	1.40	1.22	6.28	5.96	4.66	4.34	1.03	0.09	0.66	1.24



Alt Model-Shift Uniqueness Test

005115335-02, P = 0.781897 Days, E = 131.040850 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.3	27.6	0	0	4.47	1.43	8.81	35.3	35.3	27.6	27.6	0.65	1.10	0.27	3.06



Stellar Parameters For KIC 005115335

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4495^{+159}_{-159}	$4.561^{+0.059}_{-0.023}$	$0.380^{+0.050}_{-0.300}$	$0.747^{+0.026}_{-0.066}$	$0.741^{+0.043}_{-0.048}$	$2.502^{+0.637}_{-0.195}$
	+4%/-4%	+1%/-1%	+13%/-79%	+3%/-9%	+6%/-6%	+25%/-8%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005115335-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-118 ± 27	$1.70^{+0.61}_{-0.55}$	1943^{+74}_{-75}	3510^{+563}_{-347}	$4.976^{+6.412}_{-2.324}$
Alt.	-5174 ± 188	$4.35^{+0.60}_{-0.59}$	1944^{+72}_{-75}	5061^{+400}_{-314}	35^{+11}_{-8}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

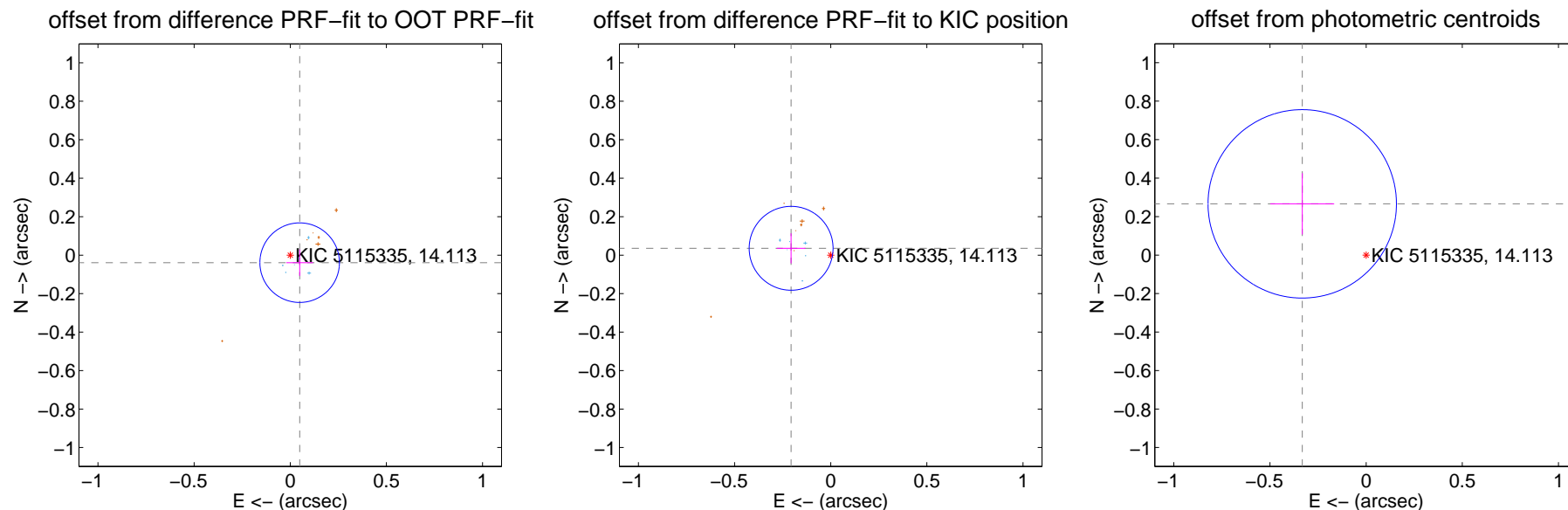
DV Centroid Data

Supplemental centroid analysis for 005115335-02. Kepler magnitude: 14.11. Transit SNR 8.53

There are 6 quarters with good PRF difference image offsets

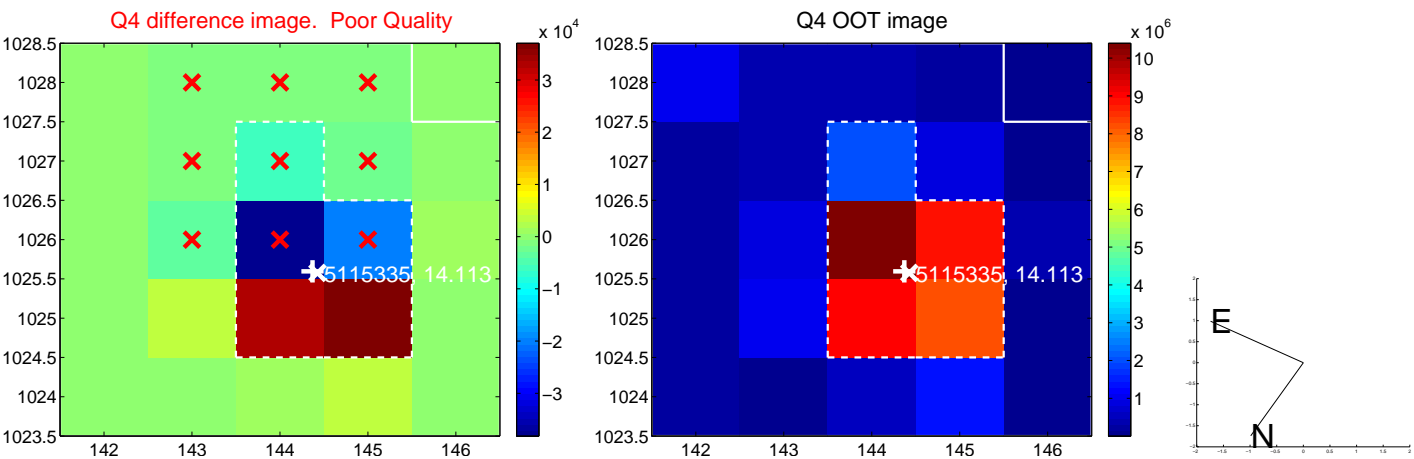
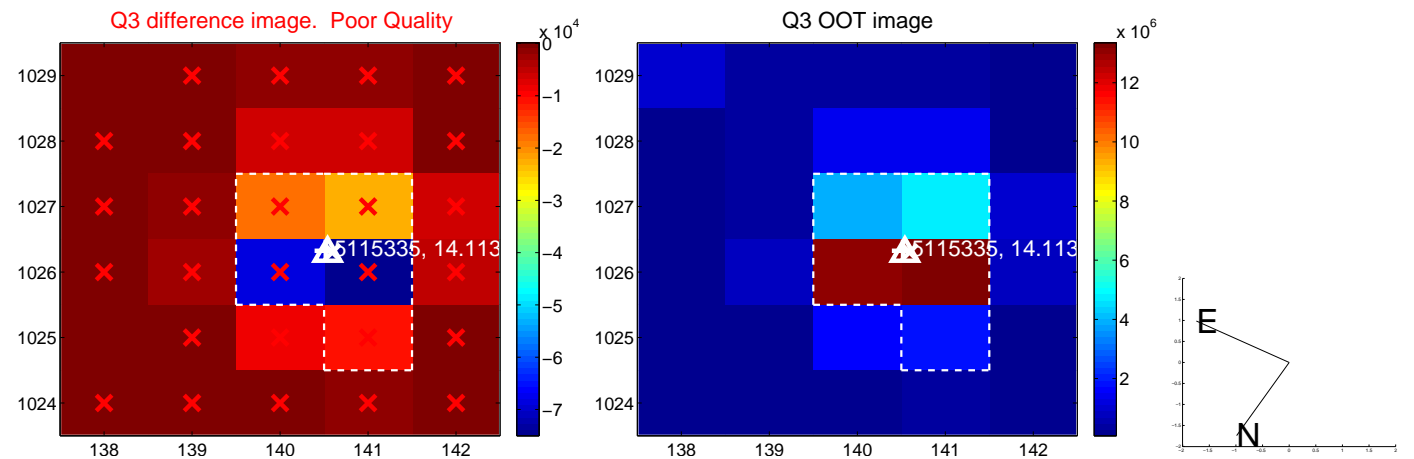
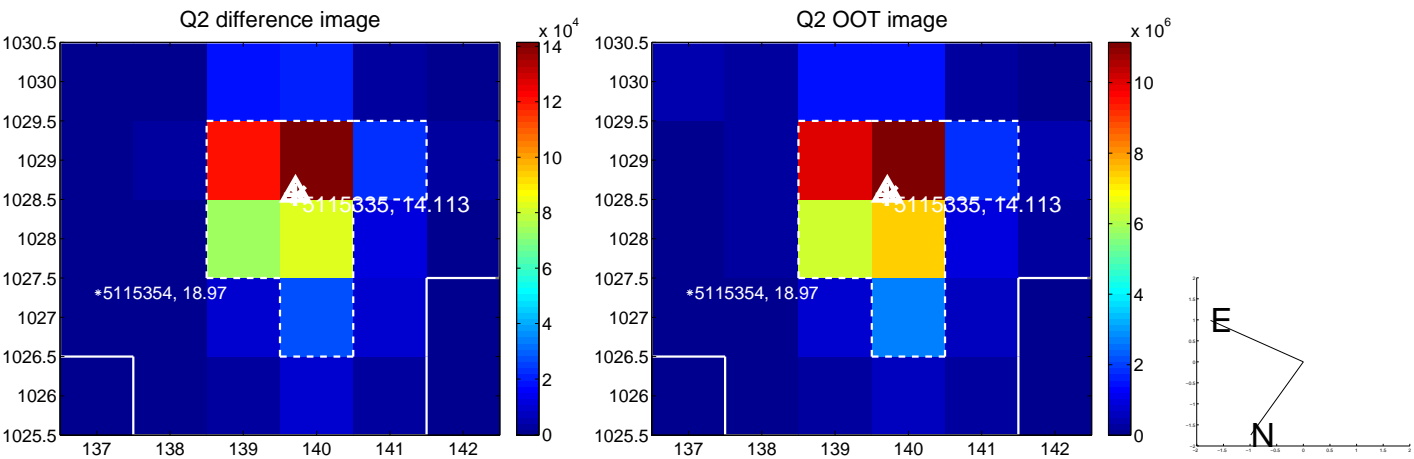
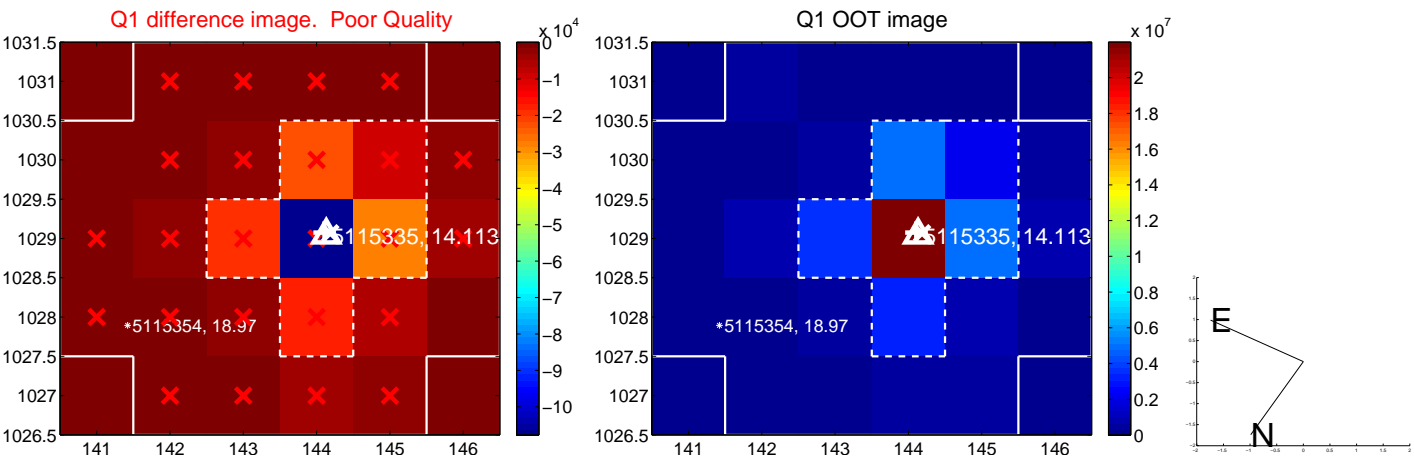
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.063 ± 0.069	0.91	-0.049 ± 0.069	-0.039 ± 0.068
PRF-fit source offset from KIC position	0.209 ± 0.073	2.87	0.206 ± 0.075	0.036 ± 0.078
photometric centroid source offset	0.43 ± 0.16	2.61	0.33 ± 0.17	0.27 ± 0.16

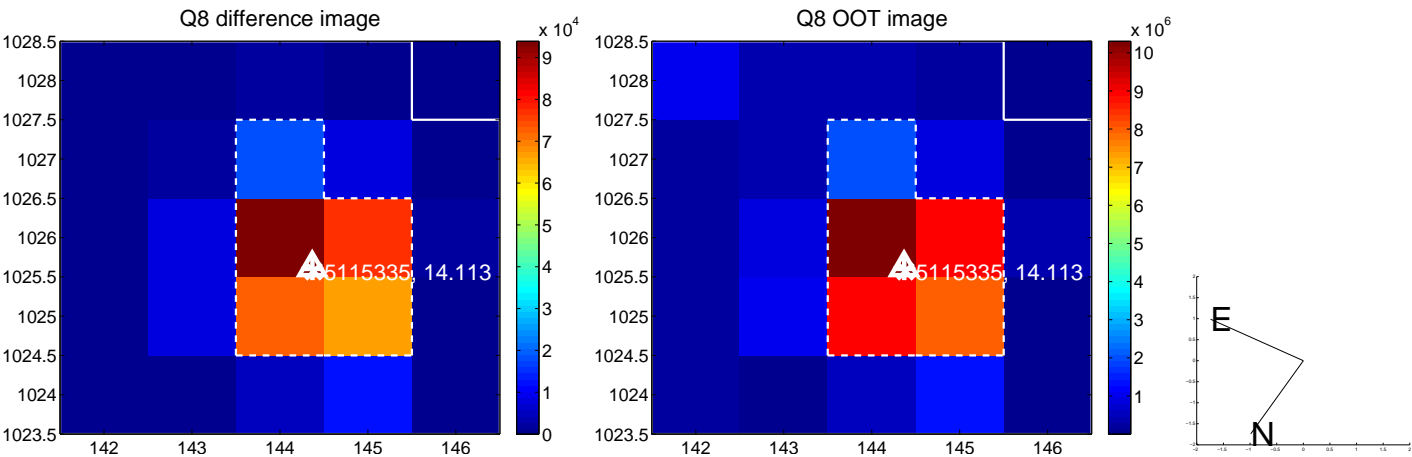
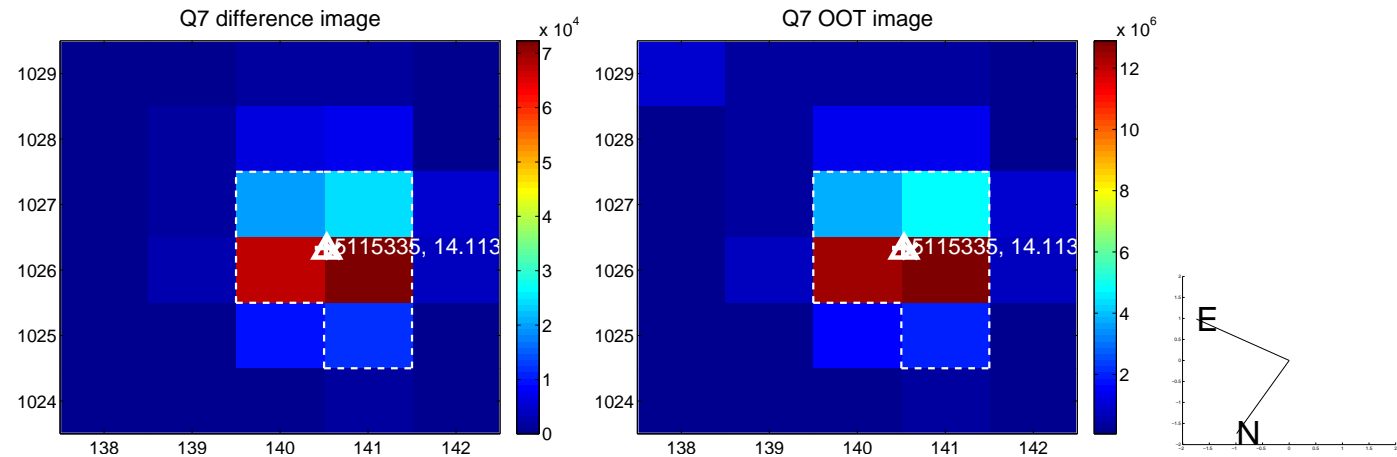
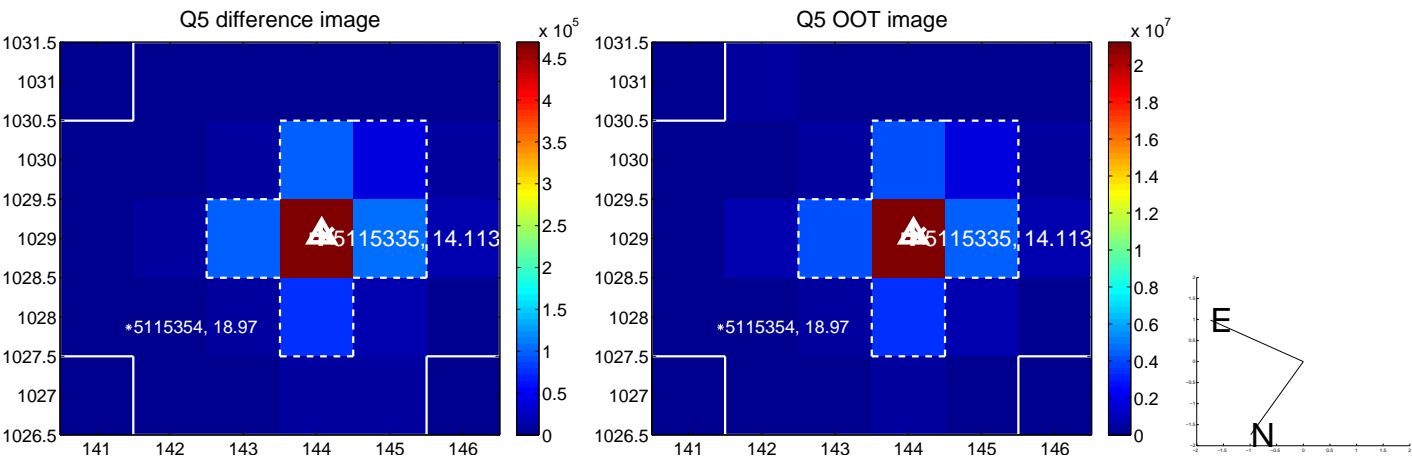


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

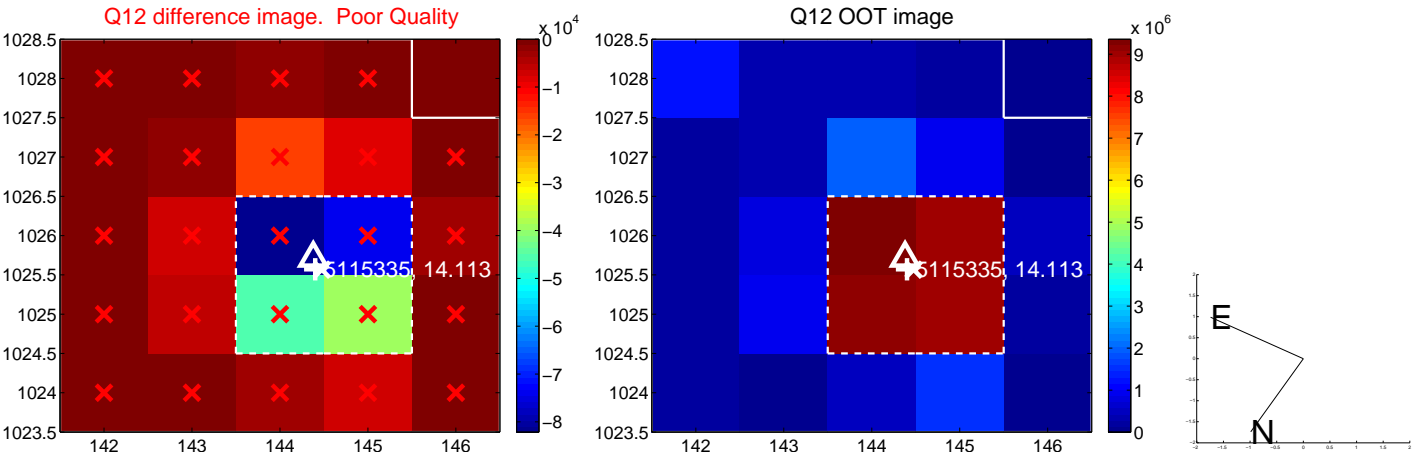
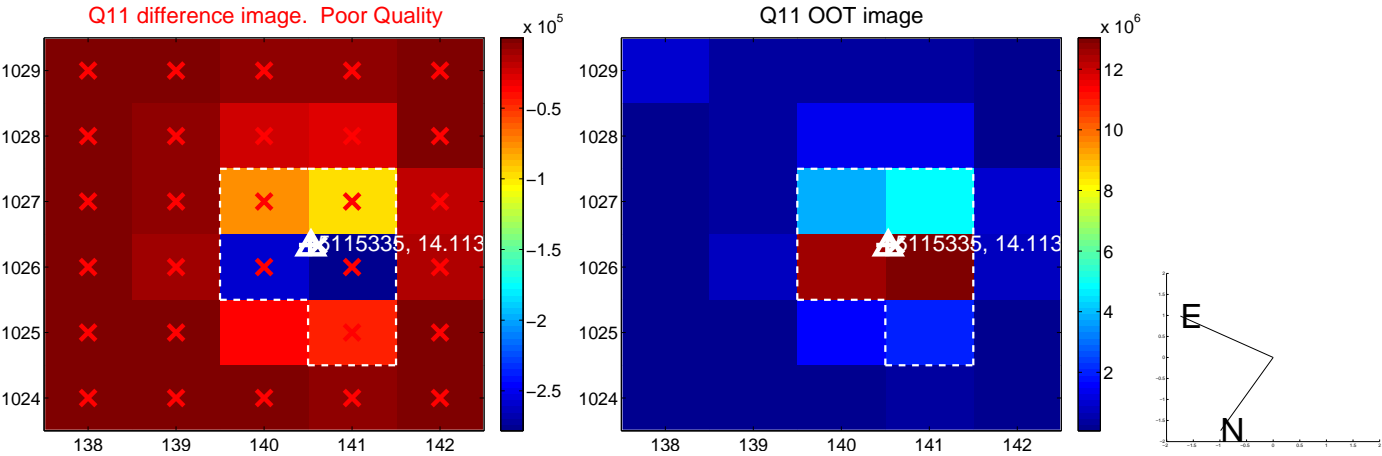
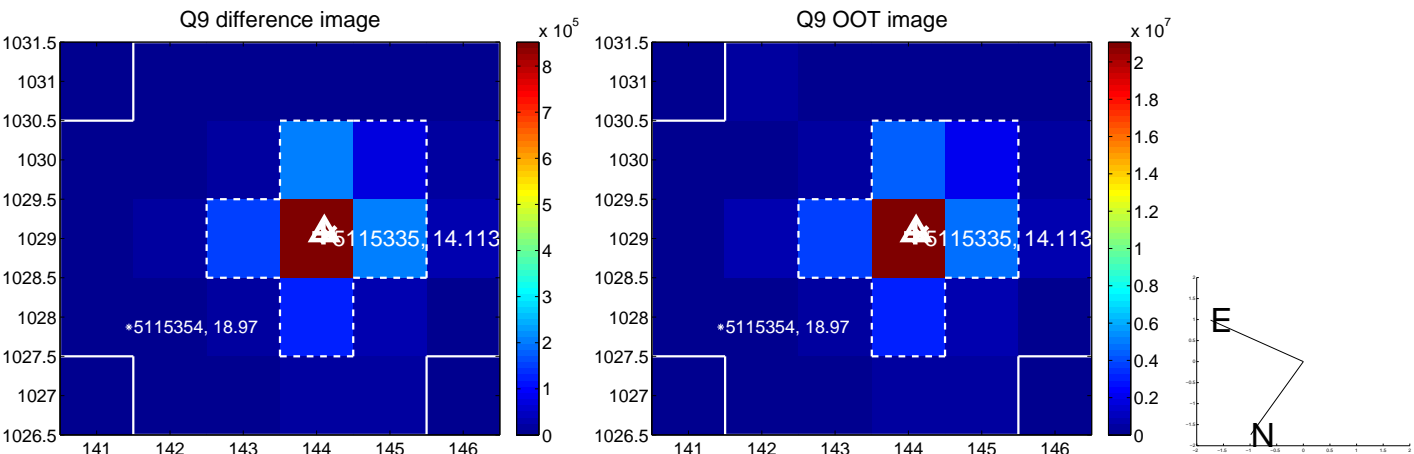
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



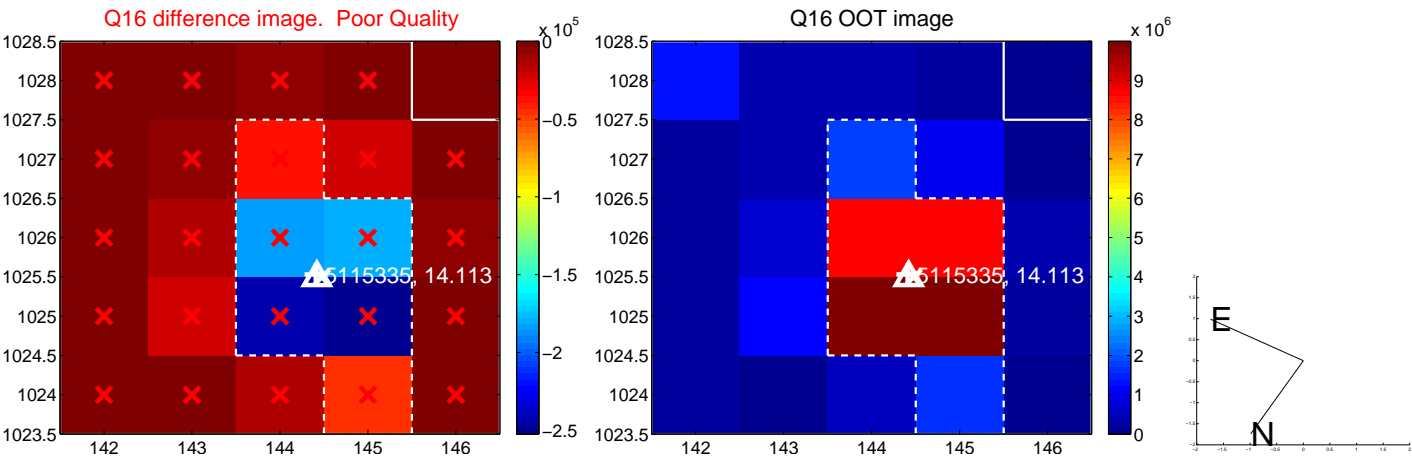
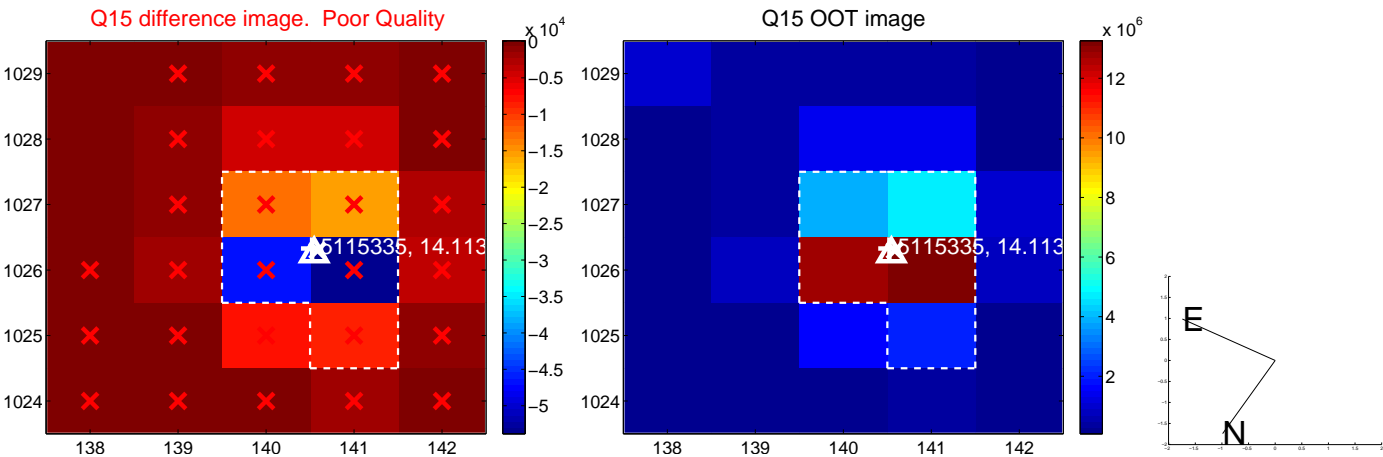
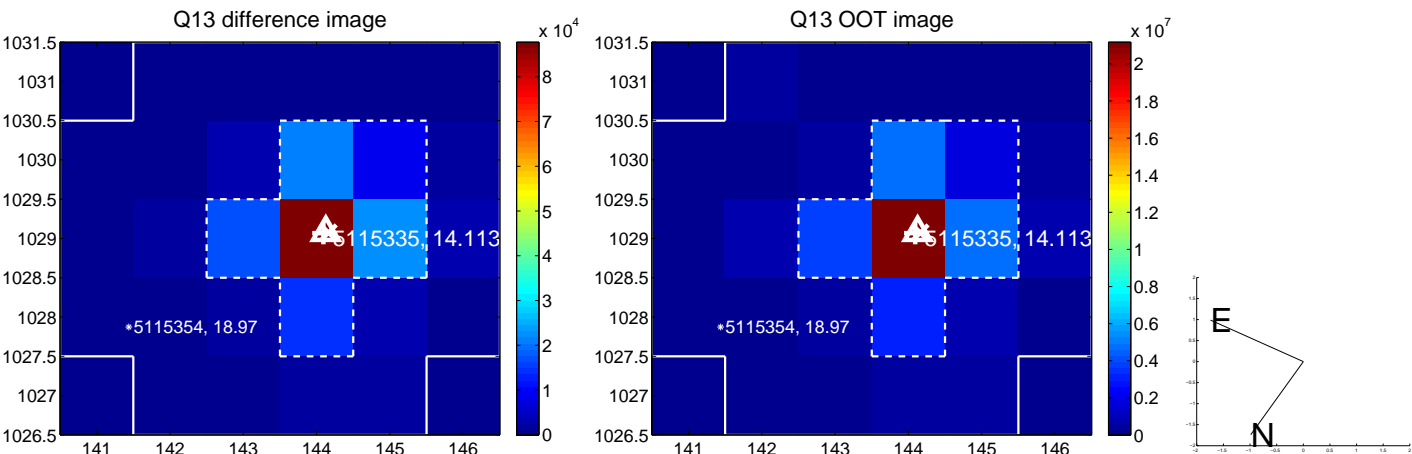
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



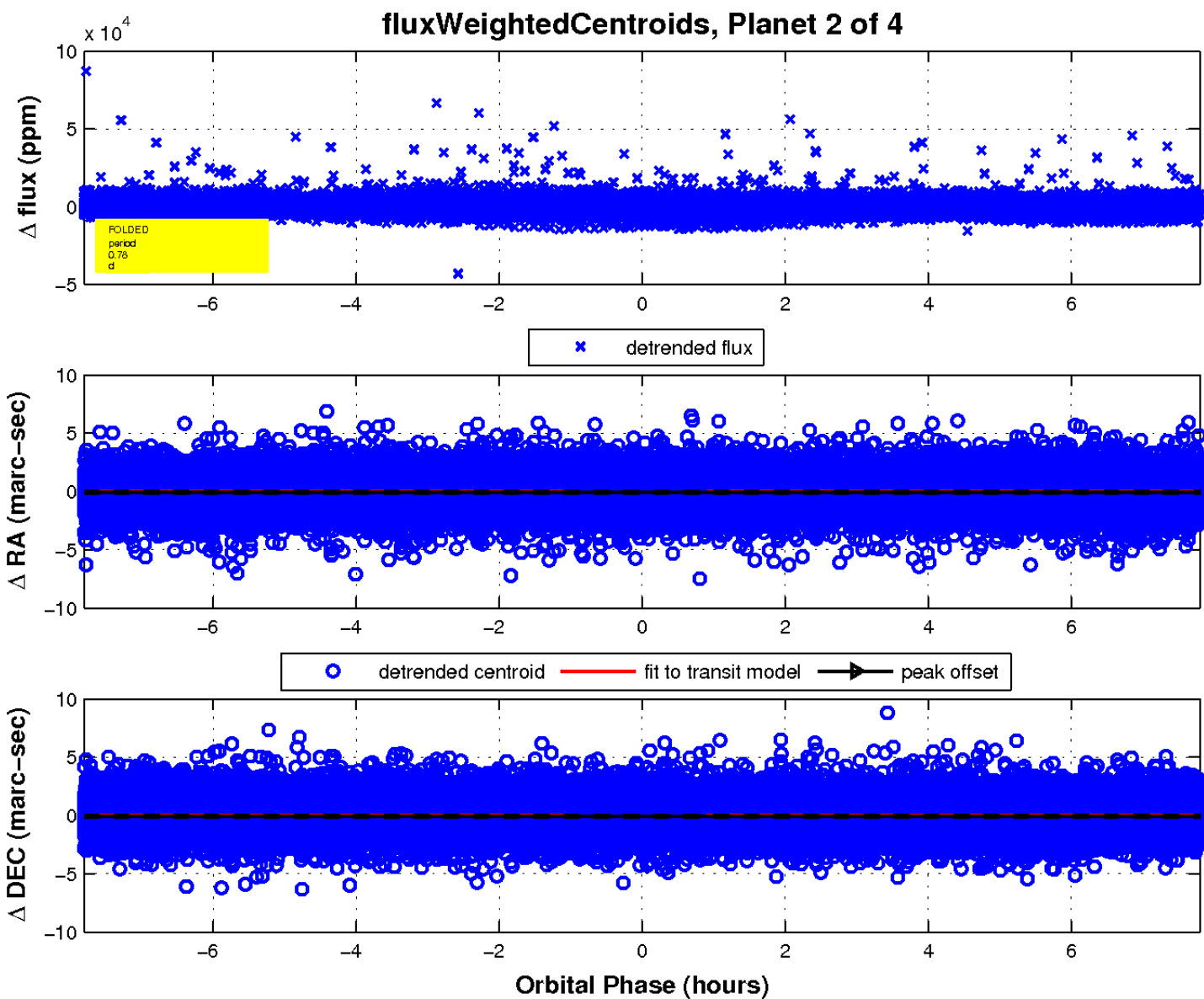
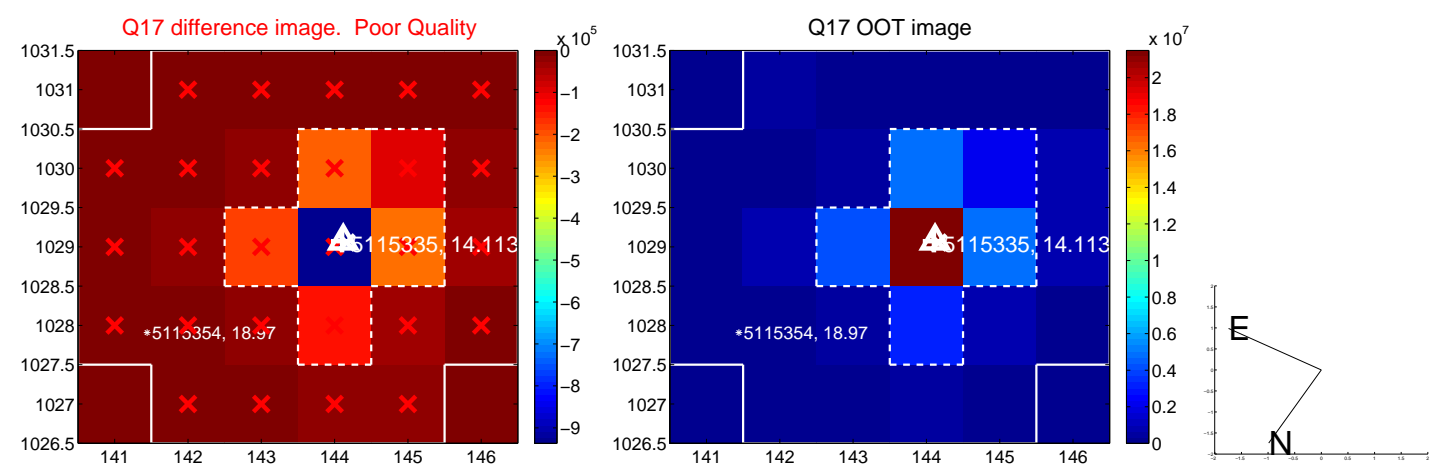
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



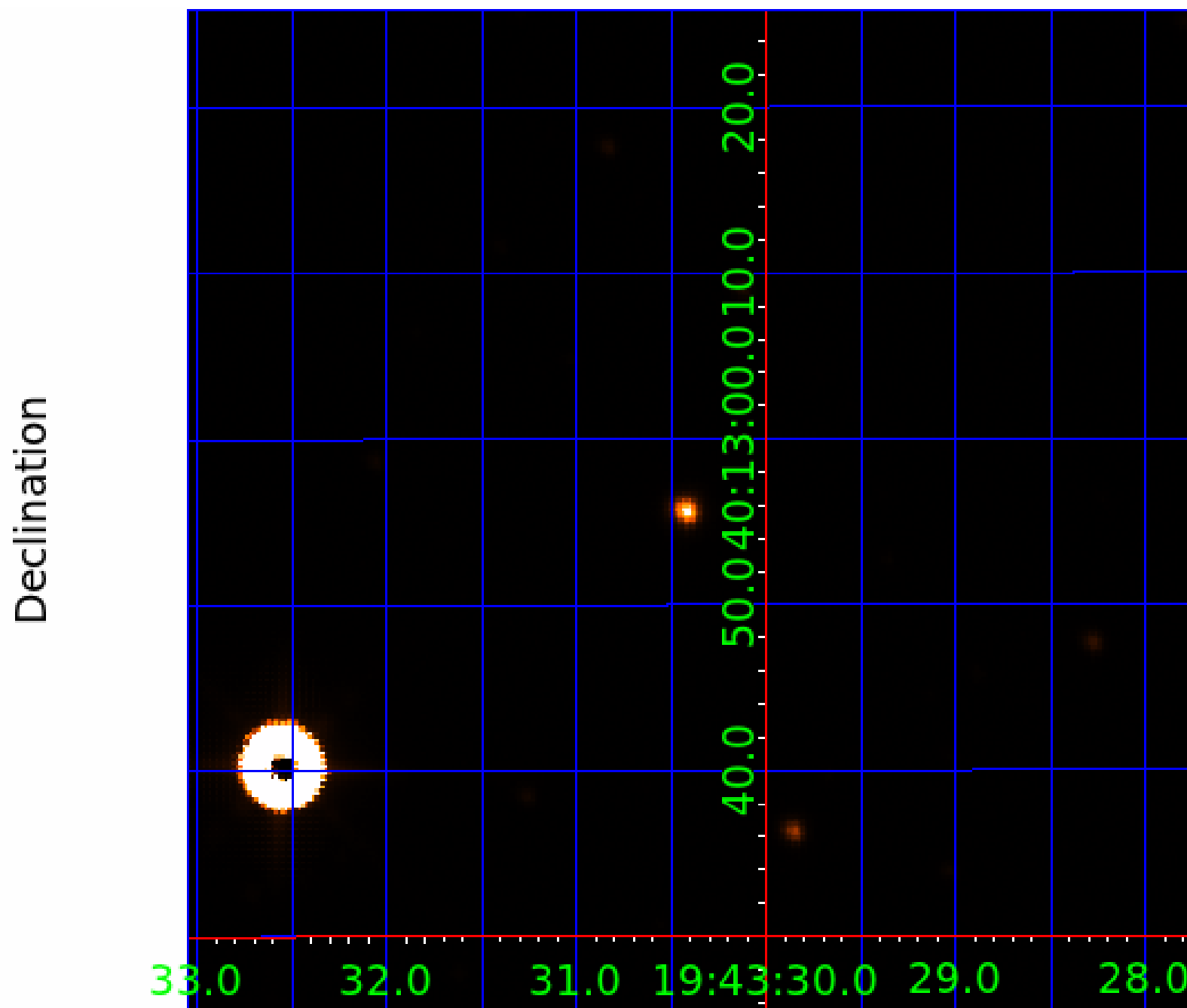
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image



KIC 005115335

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005115335-01	OBS	No	0.783192	131.849536	1440.6	2.500	12.4	-1.0	0.75	4495	2.70	901.30
005115335-02	OBS	No	0.781946	131.845337	337.8	2.601	10.4	8.5	0.75	4495	1.69	903.21
005115335-03	OBS	No	0.782575	132.065633	434.9	4.407	9.3	7.5	0.75	4495	1.48	902.25
005115335-04	OBS	No	0.780326	132.189119	640.4	1.500	7.1	-1.0	0.75	4495	1.81	905.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005115335-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
005115335-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005115335-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005115335-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

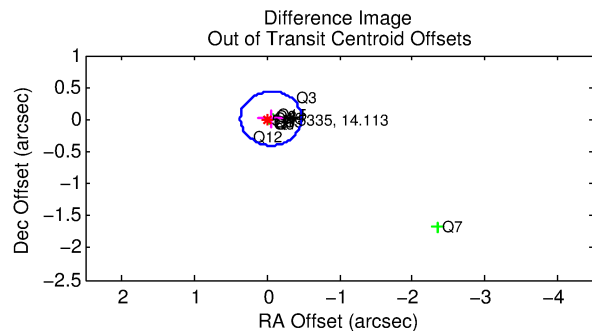
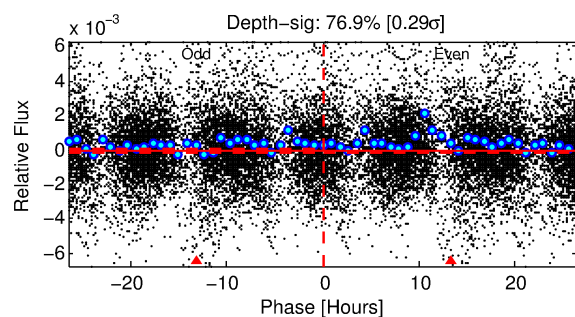
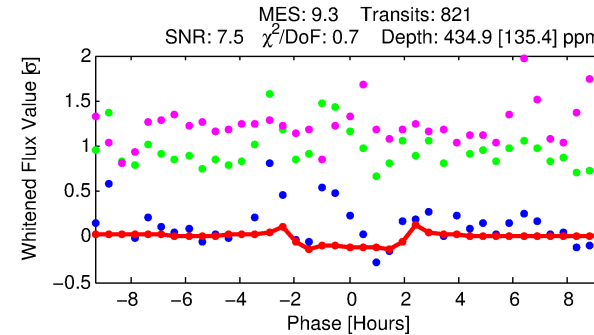
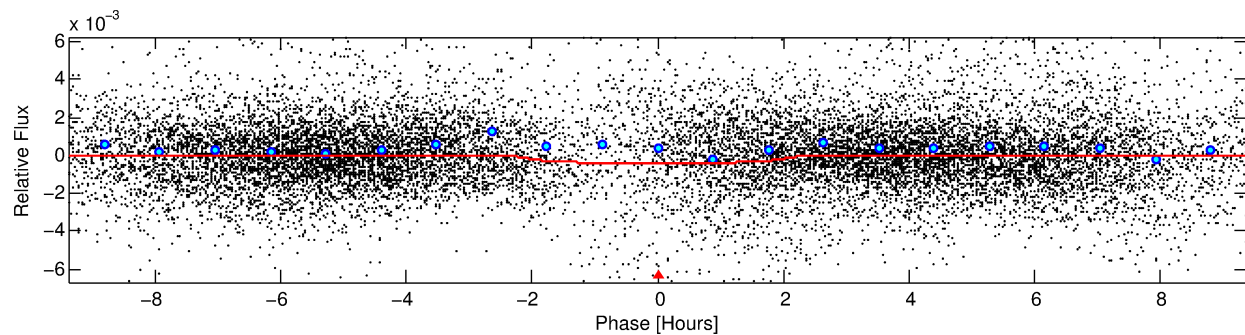
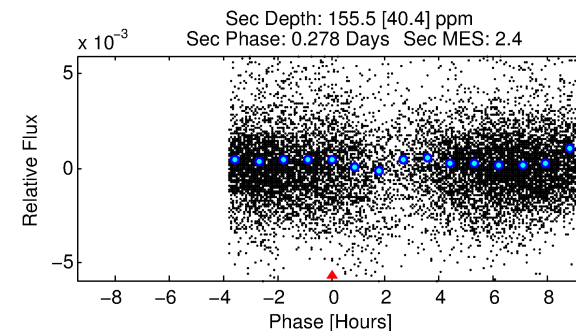
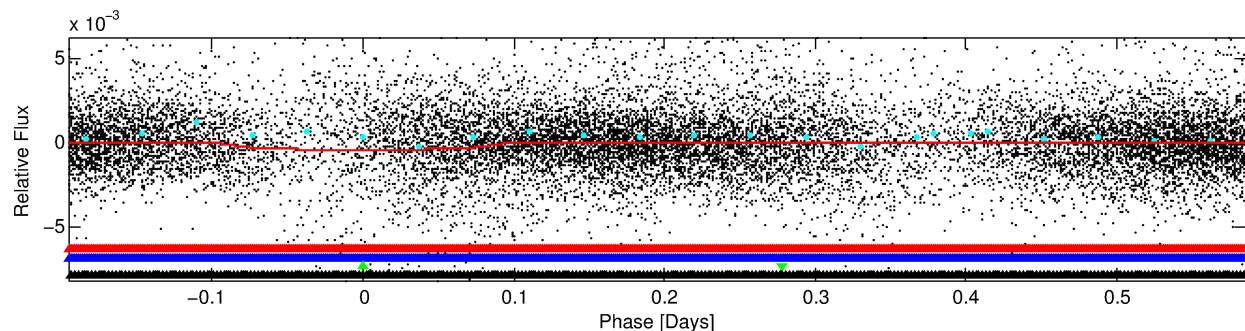
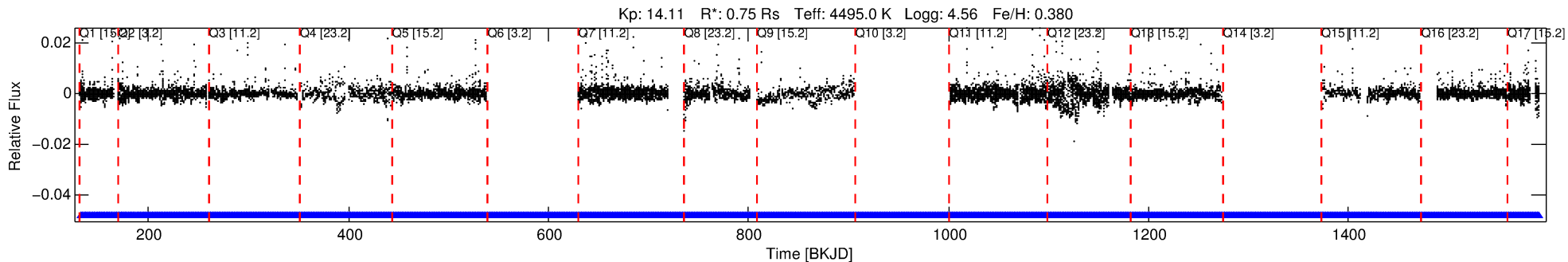
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005115335-03

No Significant Match Found

DV One-Page Summary

KIC: 5115335 Candidate: 3 of 4 Period: 0.783 d



DV Fit Results:

Period = 0.78257 [0.00001] d
Epoch = 132.0656 [0.0024] BKJD
Rp/R* = 0.0181 [0.0076]
a/R* = 1.51 [1.04]
b = 0.00 [2581.99]
Seff = 902.25 [160.62]
Teq = 1398 [62] K
Rp = 1.48 [0.64] Re
a = 0.0150 [0.0011] AU
Ag = 8.85 [7.84] [1.00σ]
Teffp = 3726 [830] K [2.80σ]

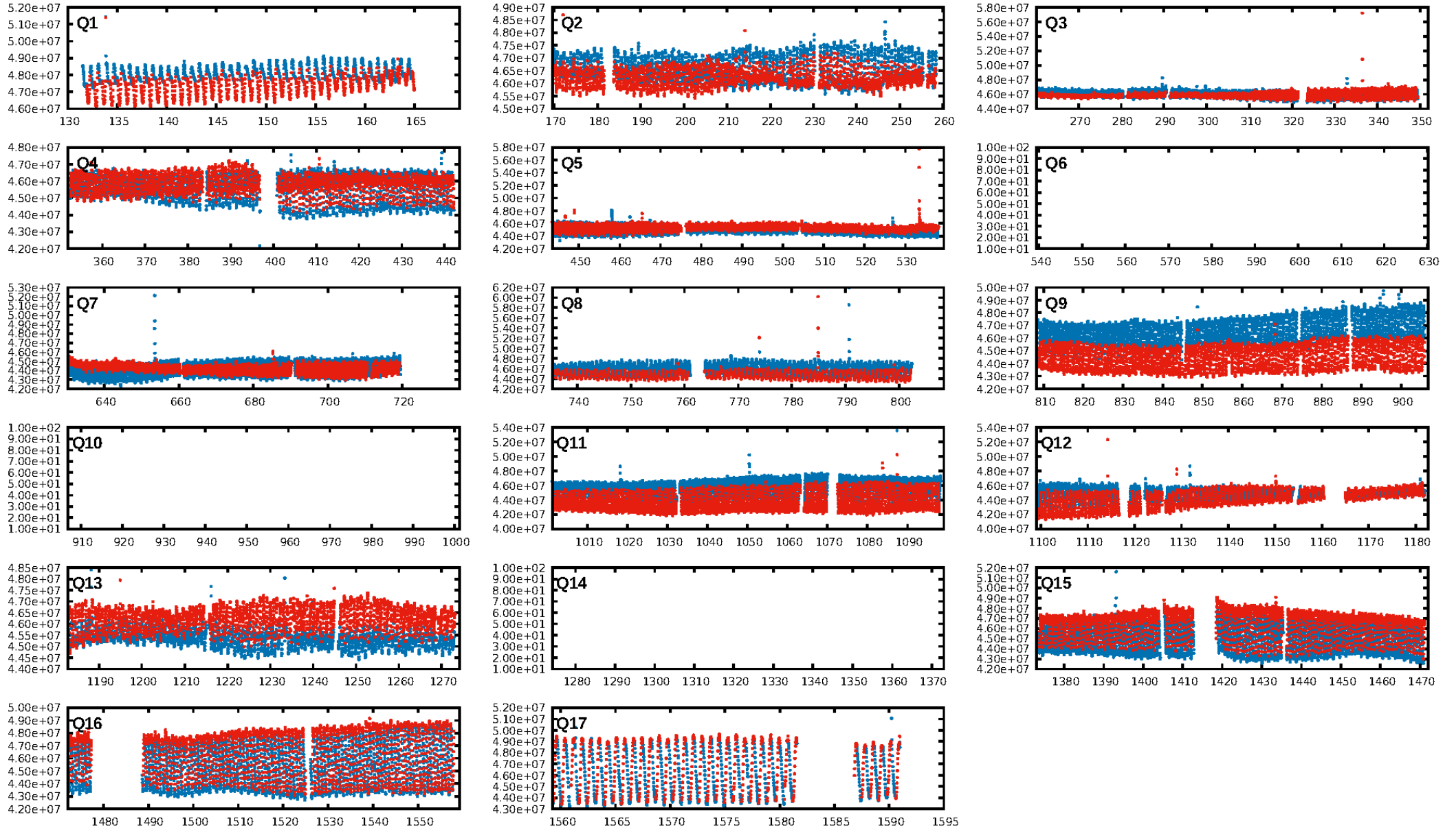
DV Diagnostic Results:

ShortPeriod-sig: 0.2% [0.00σ]
LongPeriod-sig: 0.2% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [743/743]
GhostDiagnostic-chr: 1.51
Centroid-sig: 1.6%
Centroid-so: 0.161 arcsec [1.67σ]
OotOffset-rm: 0.057 arcsec [0.40σ]
KicOffset-rm: 0.227 arcsec [1.29σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 0.50 [7/14]
DiffImageOverlap-fno: 0.00 [0/14]

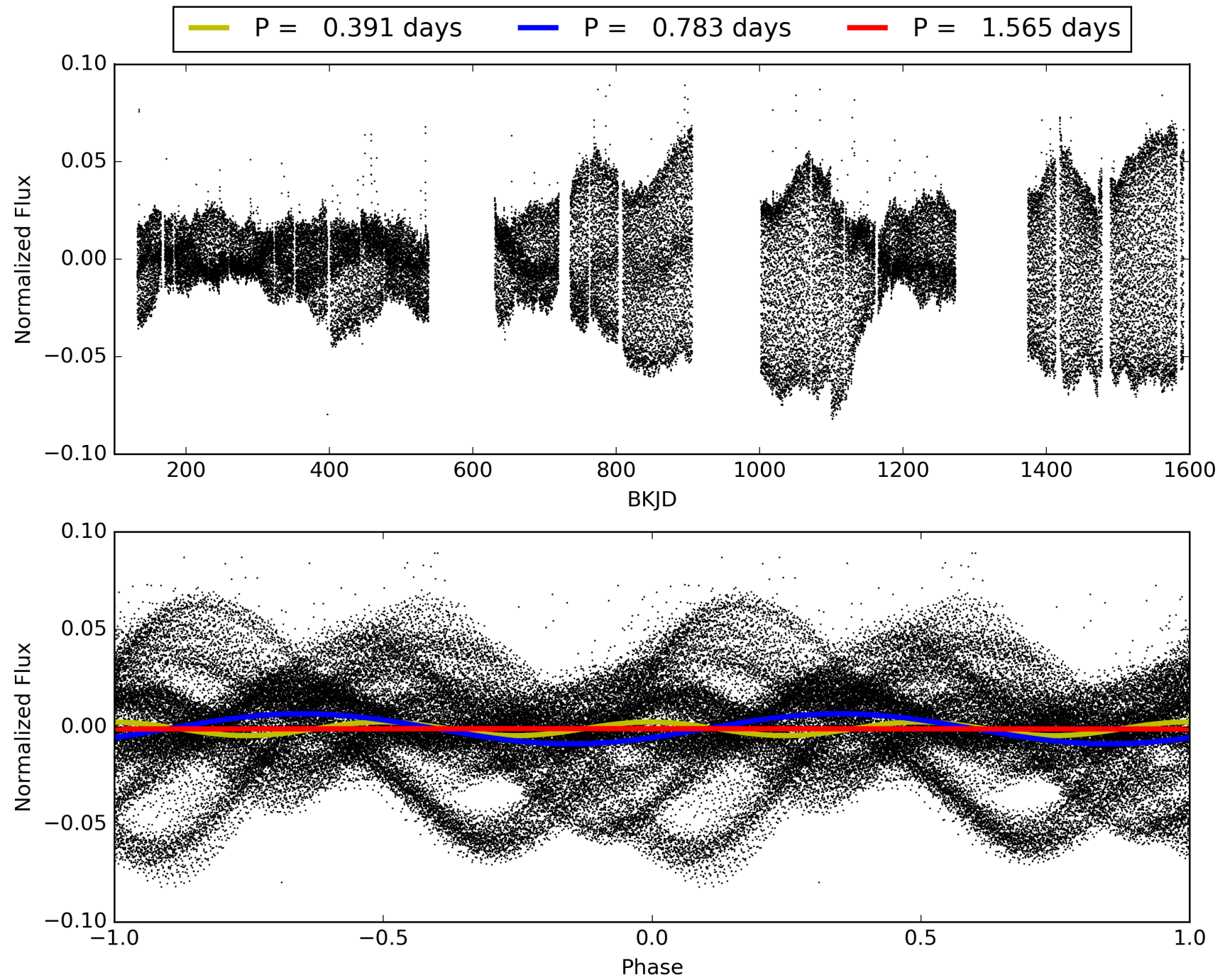
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:59:42 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005115335-03, PDC Light Curves

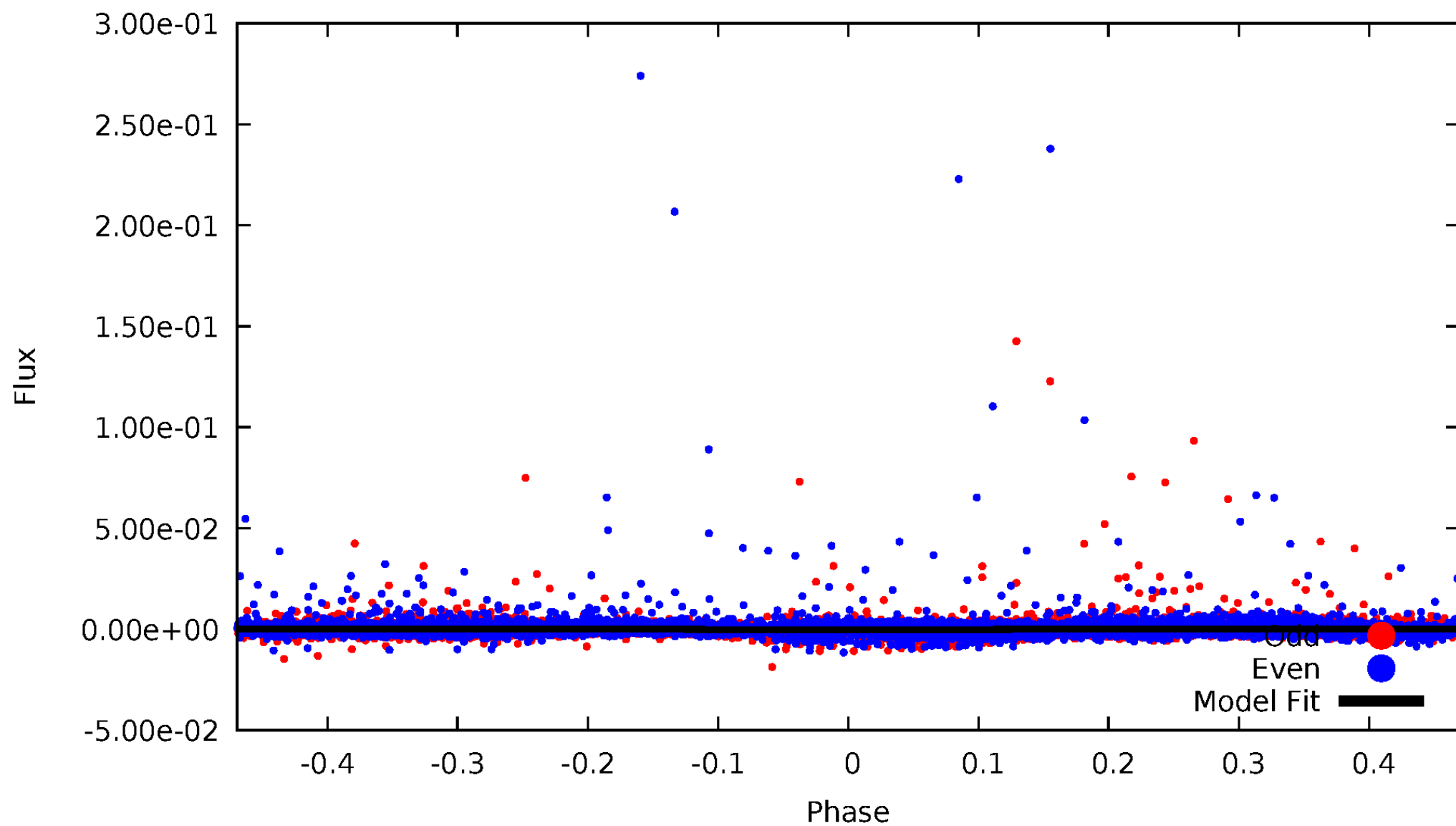


TCE 005115335-03



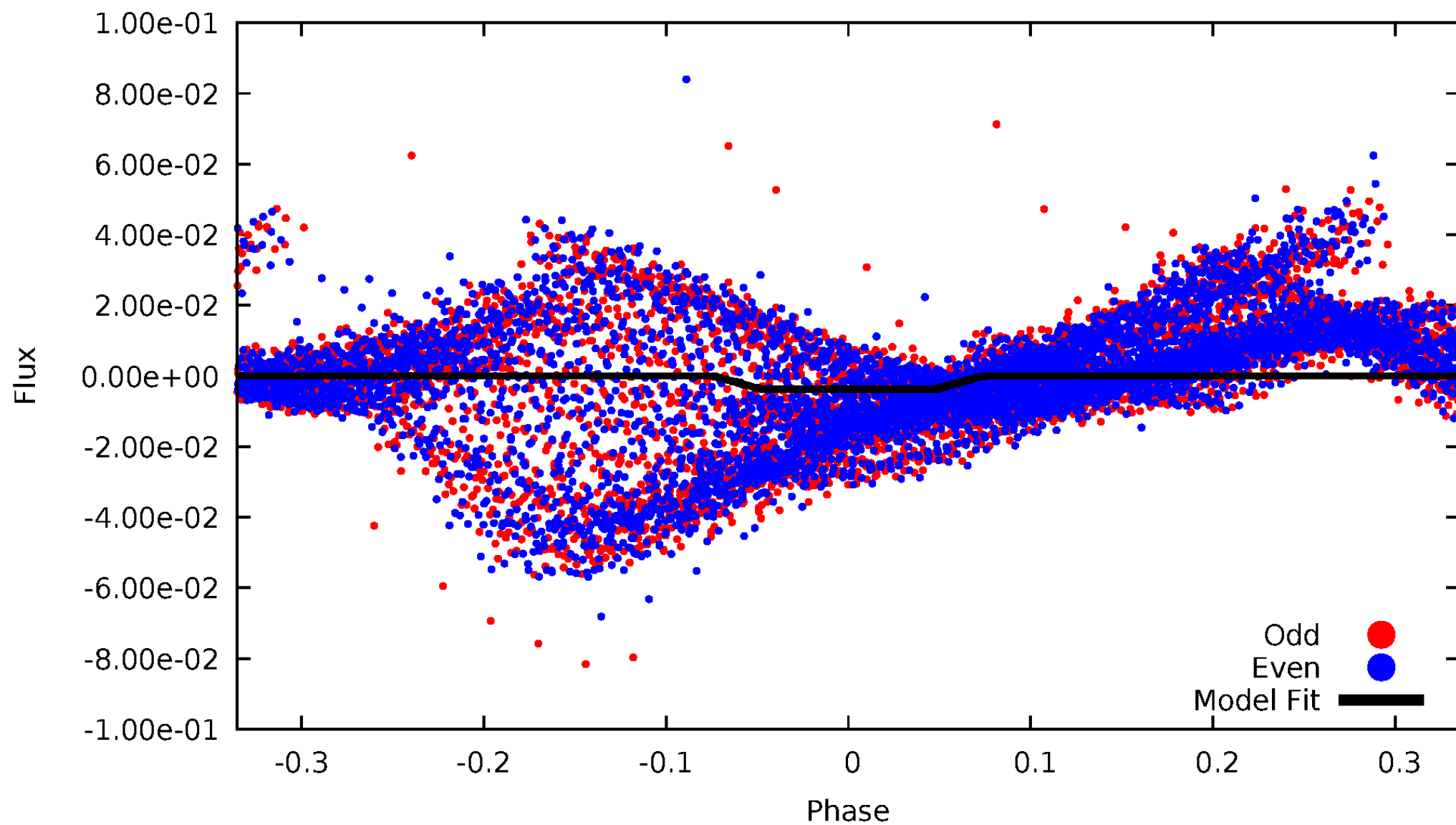
DV Odd/Even

TCE 005115335-03



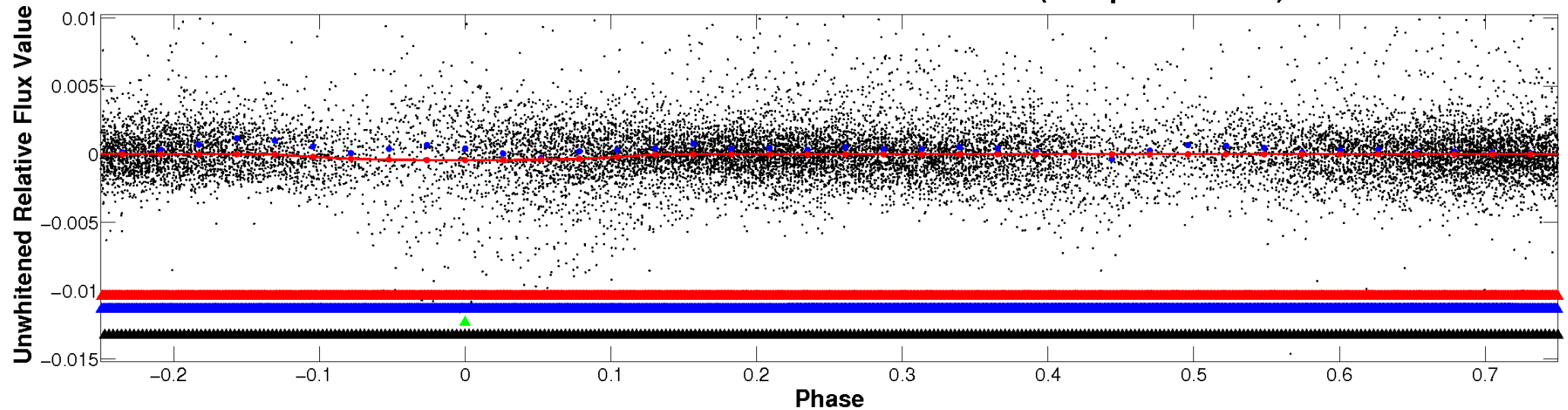
ALT Odd/Even

TCE 005115335-03

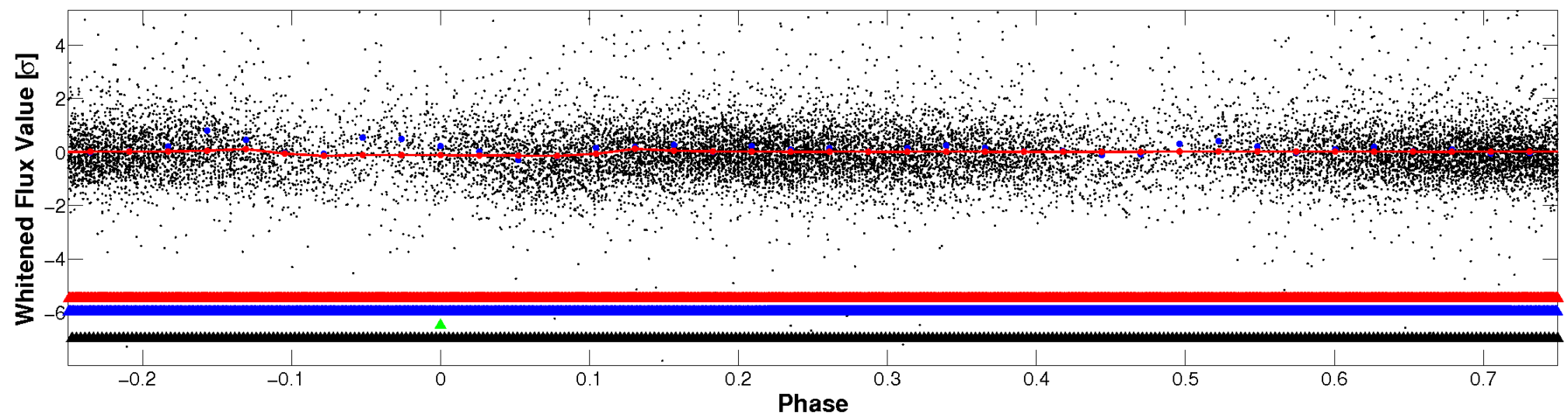


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

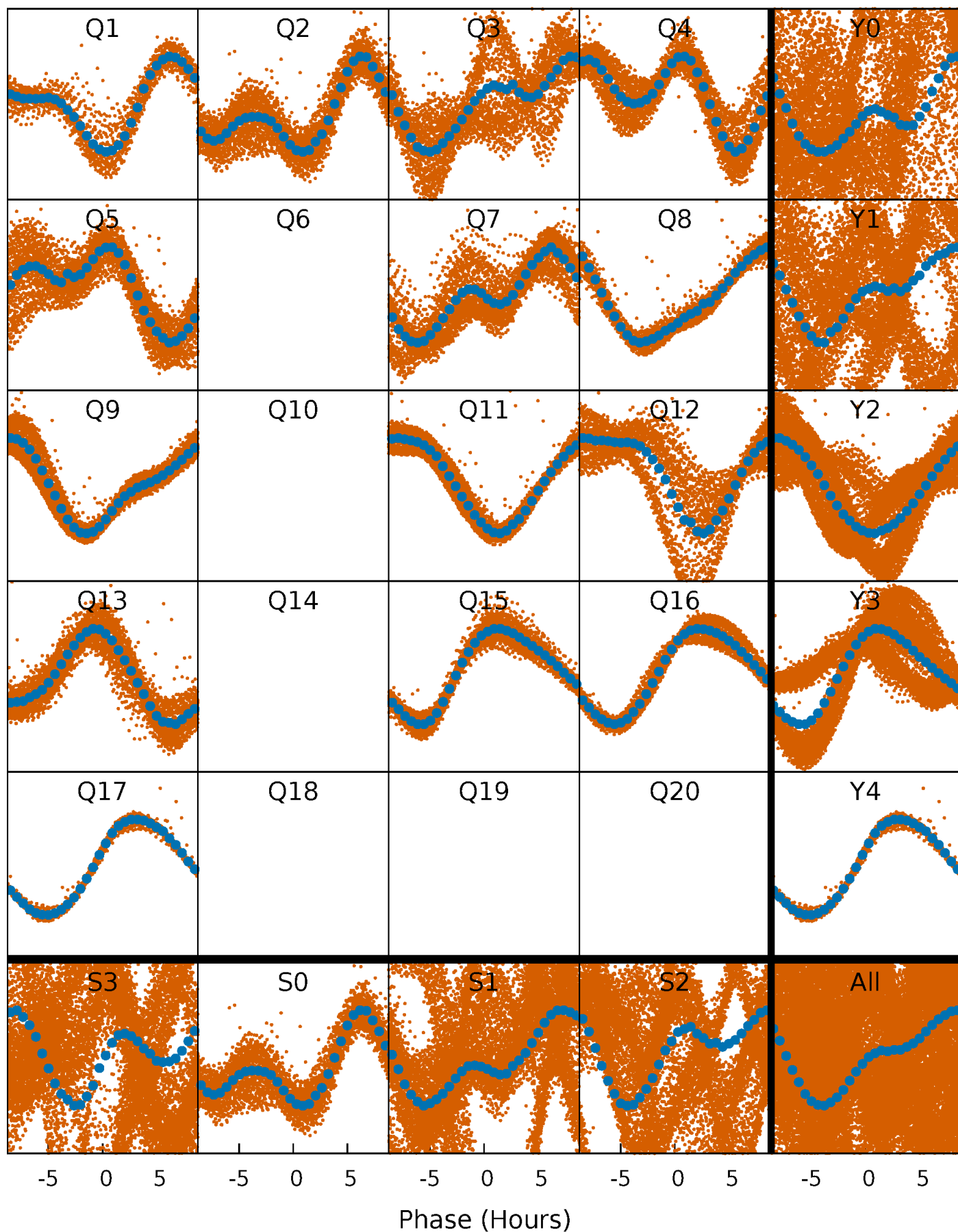


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



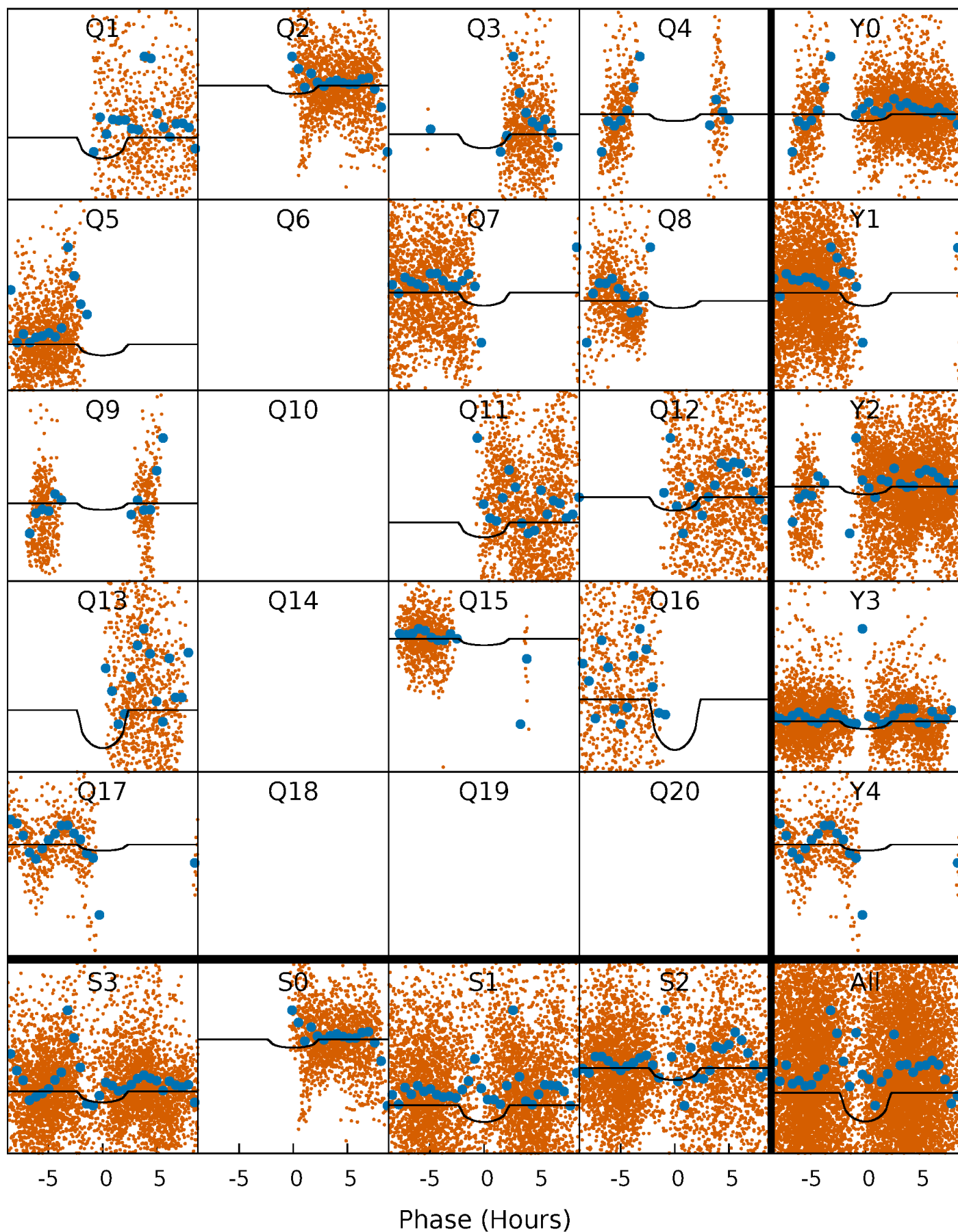
PDC Quarter-Phased Transit Curves

TCE 005115335-03 P= 0.782575 Days $T_0=132.065633$ (BKJD)



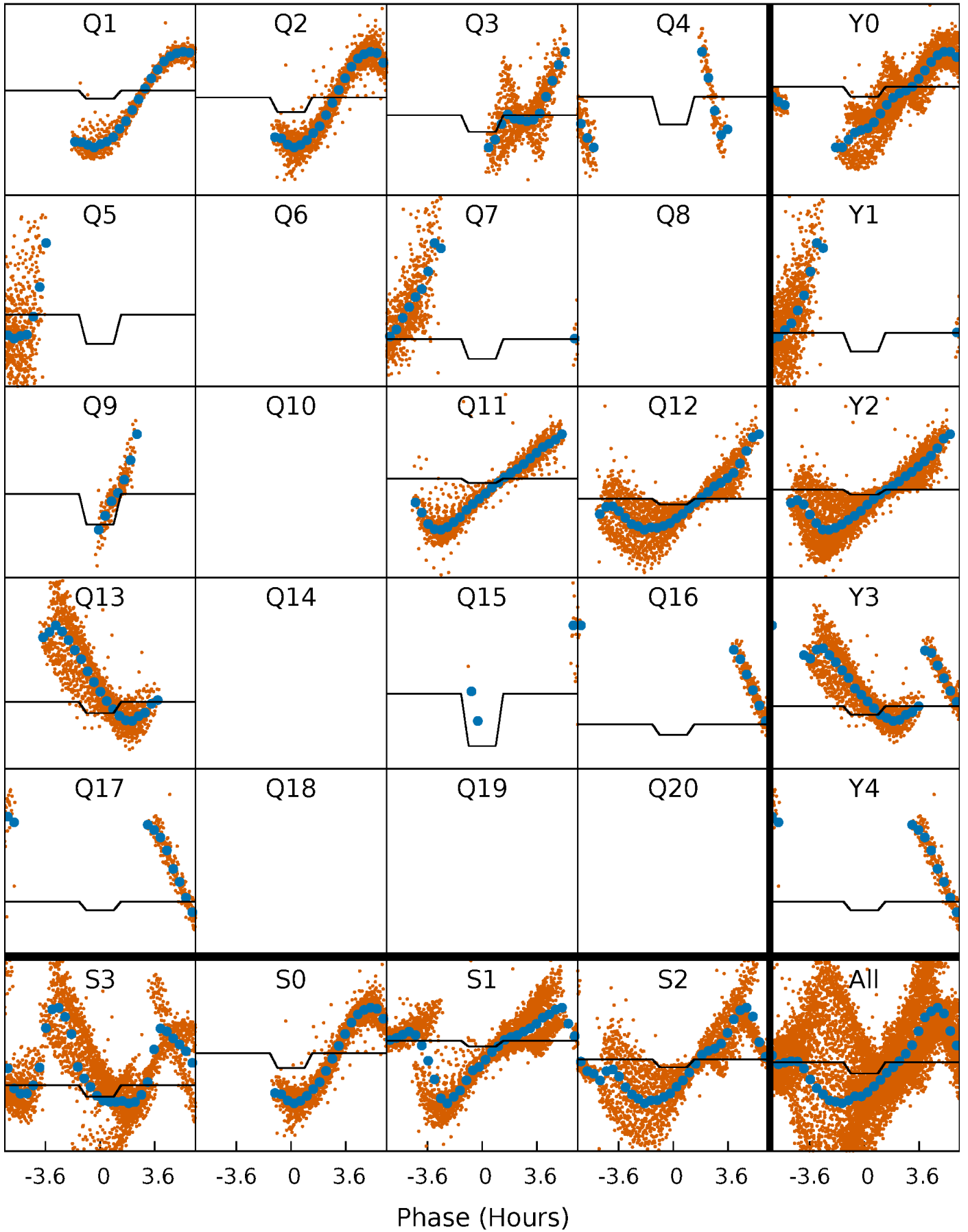
DV Quarter-Phased Transit Curves

TCE 005115335-03 P= 0.782575 Days $T_0=132.065633$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

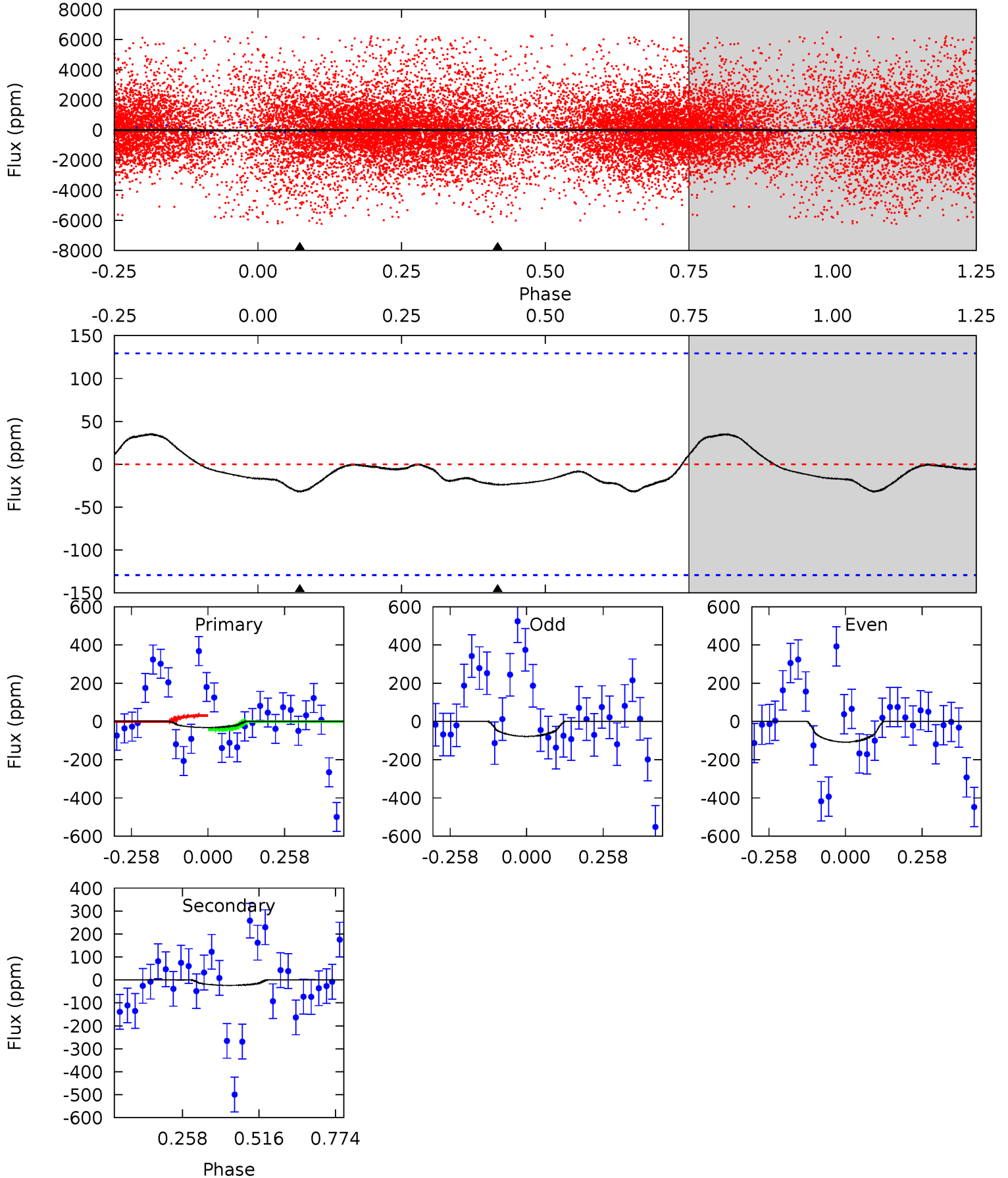
TCE 005115335-03 P= 0.782675 Days $T_0=132.096453$ (BKJD)



DV Model-Shift Uniqueness Test

005115335-03, P = 0.782575 Days, E = 131.283058 Days

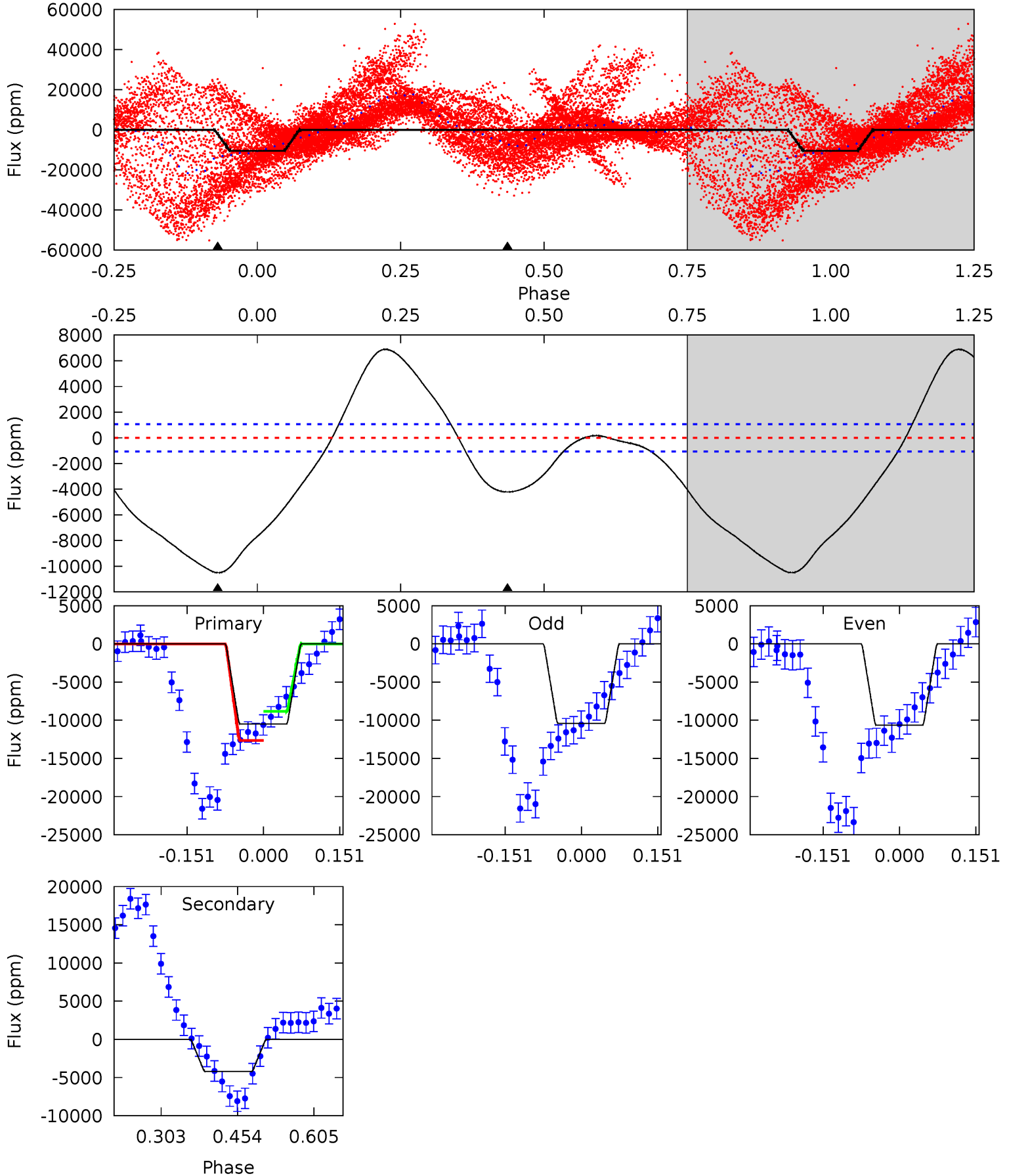
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.07	0.81	0	0	4.36	1.13	0.75	1.07	1.07	0.81	0.81	0.43	-5.58	0.52	0.16



Alt Model-Shift Uniqueness Test

005115335-03, P = 0.782675 Days, E = 131.313778 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.3	17.8	0	0	4.48	1.43	14.7	44.3	44.3	17.8	17.8	0.44	0.86	0.40	7.87



Stellar Parameters For KIC 005115335

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4495^{+159}_{-159}	$4.561^{+0.059}_{-0.023}$	$0.380^{+0.050}_{-0.300}$	$0.747^{+0.026}_{-0.066}$	$0.741^{+0.043}_{-0.048}$	$2.502^{+0.637}_{-0.195}$
	+4%/-4%	+1%/-1%	+13%/-79%	+3%/-9%	+6%/-6%	+25%/-8%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005115335-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-24 ± 30	$1.48^{+0.65}_{-0.60}$	1944^{+71}_{-78}	2762^{+655}_{-5405}	$1.221^{+3.238}_{-1.539}$
Alt.	-4213 ± 237	$4.96^{+0.61}_{-0.64}$	1937^{+80}_{-82}	4578^{+339}_{-255}	22^{+7}_{-4}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

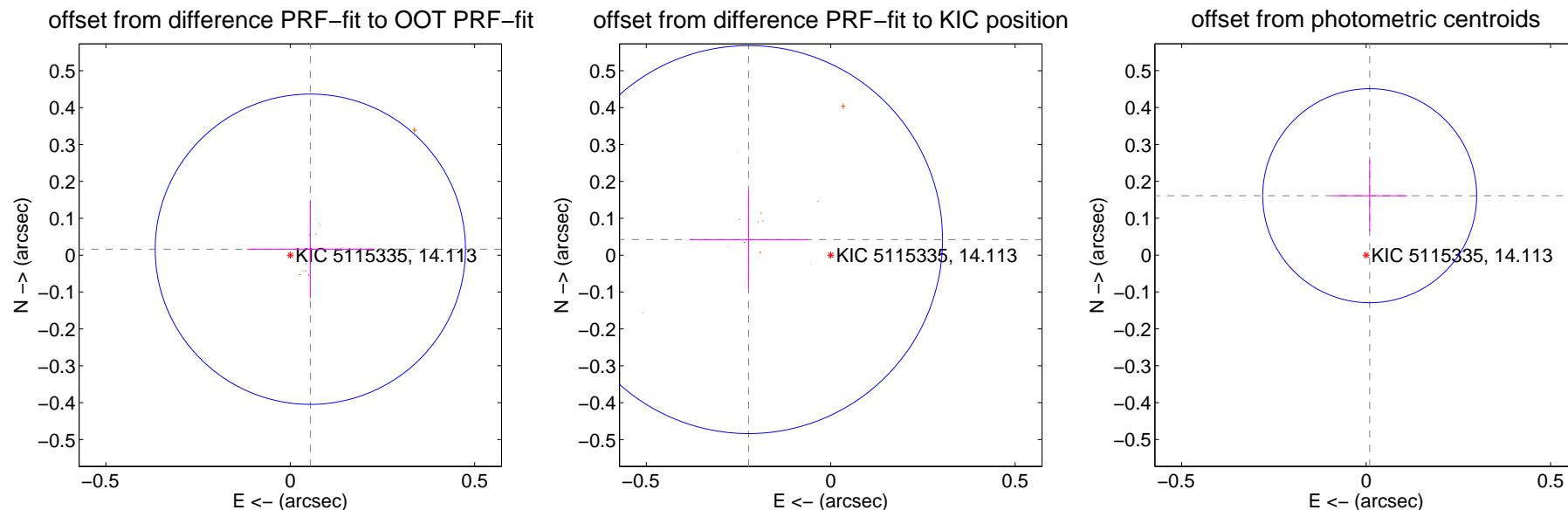
DV Centroid Data

Supplemental centroid analysis for 005115335-03. Kepler magnitude: 14.11. Transit SNR 7.52

There are 7 quarters with good PRF difference image offsets

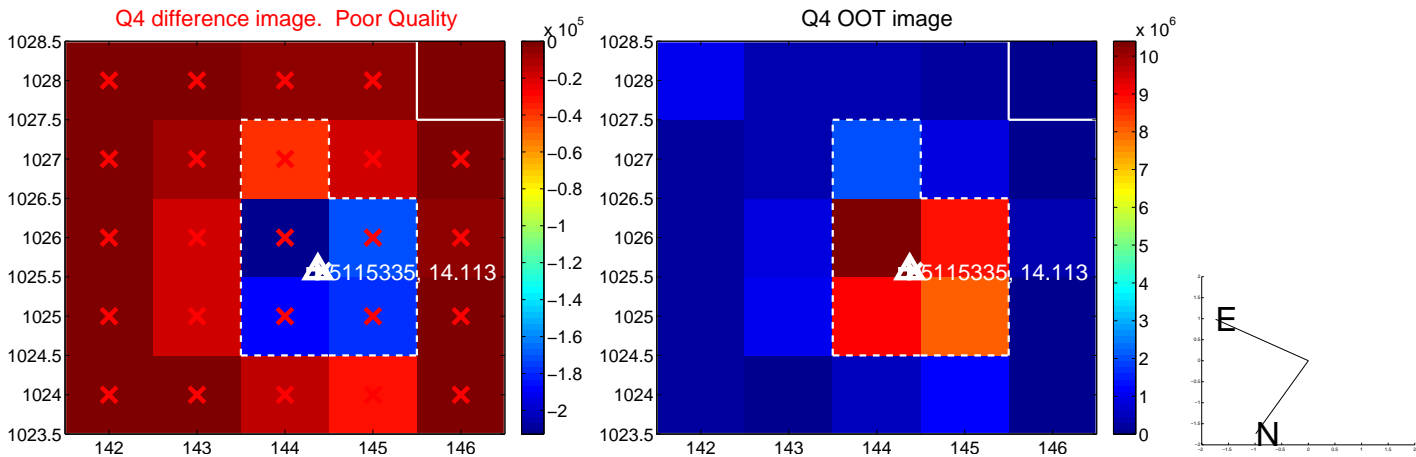
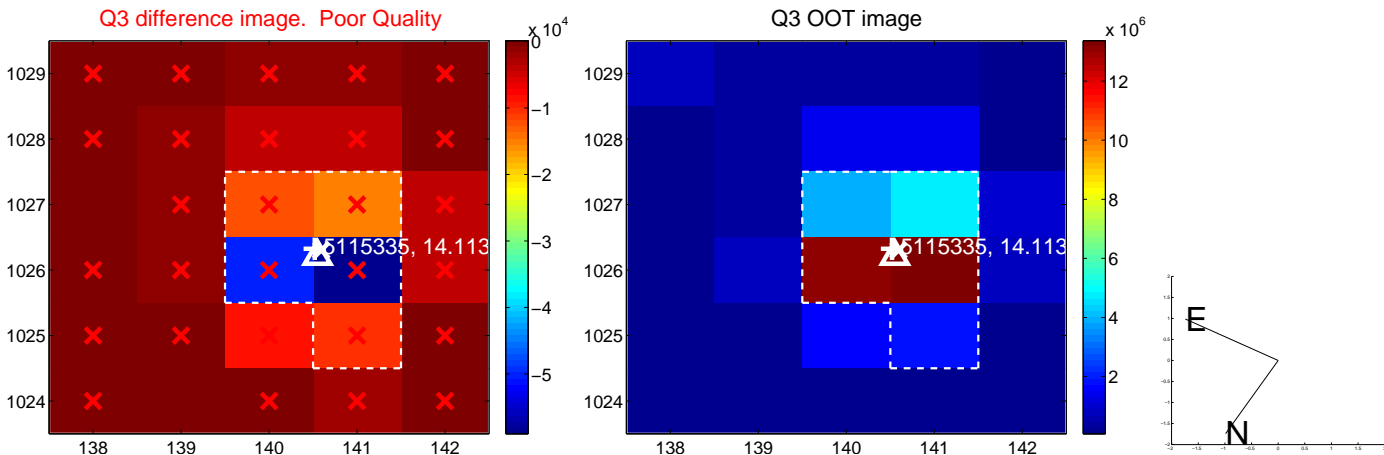
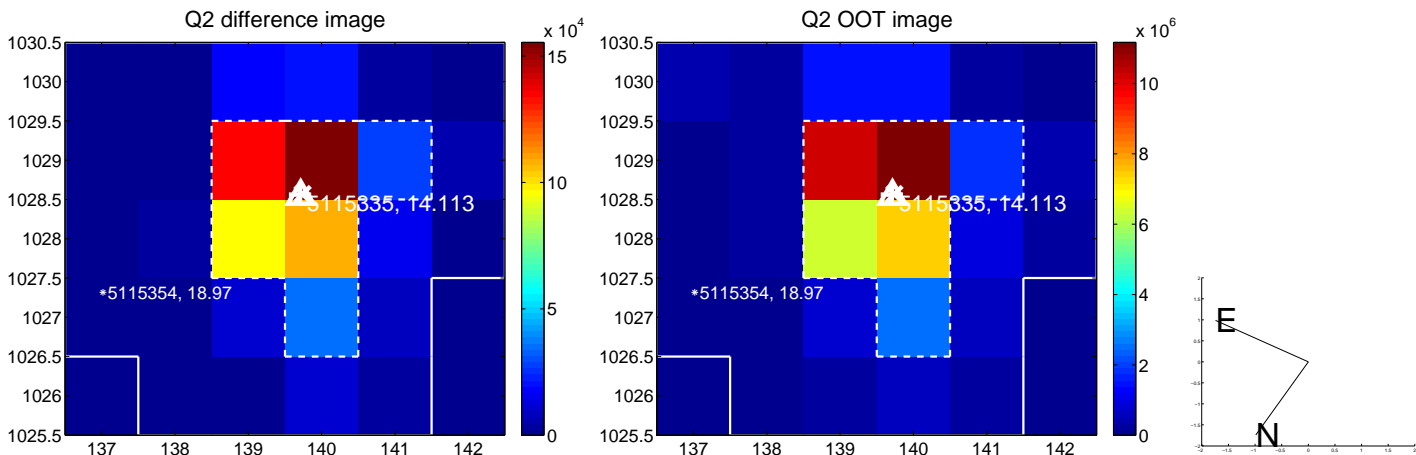
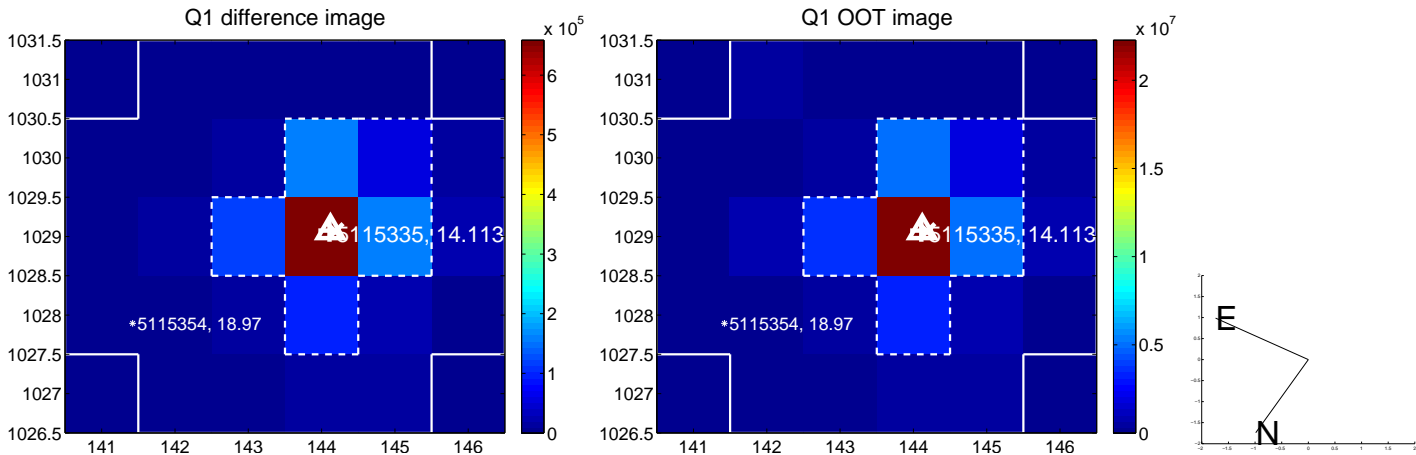
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.057 ± 0.140	0.40	-0.054 ± 0.171	0.016 ± 0.133
PRF-fit source offset from KIC position	0.227 ± 0.175	1.29	0.223 ± 0.160	0.042 ± 0.133
photometric centroid source offset	0.16 ± 0.10	1.67	-0.01 ± 0.10	0.16 ± 0.10

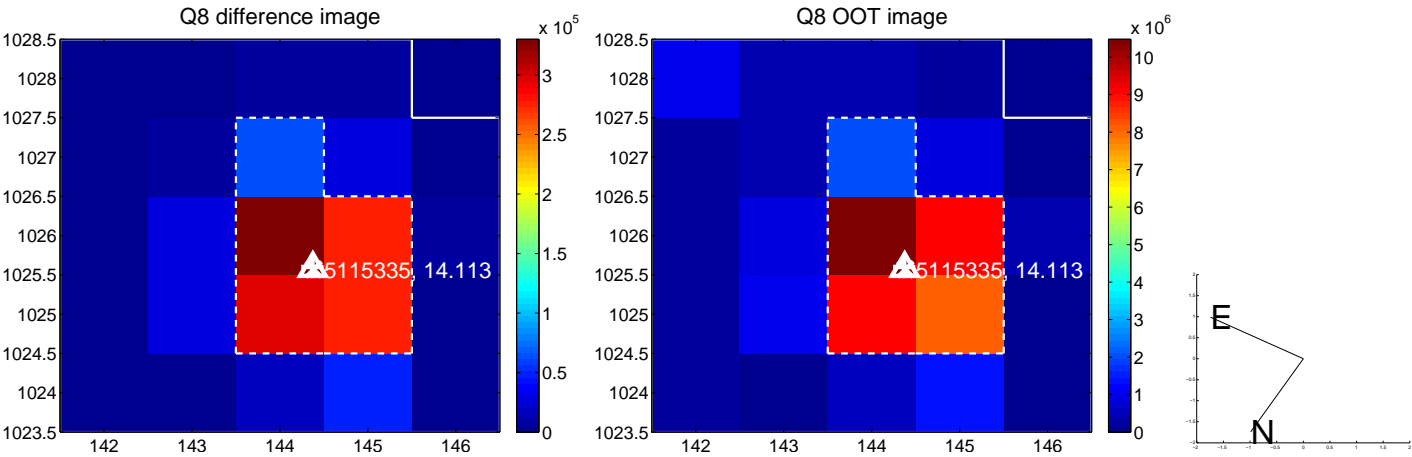
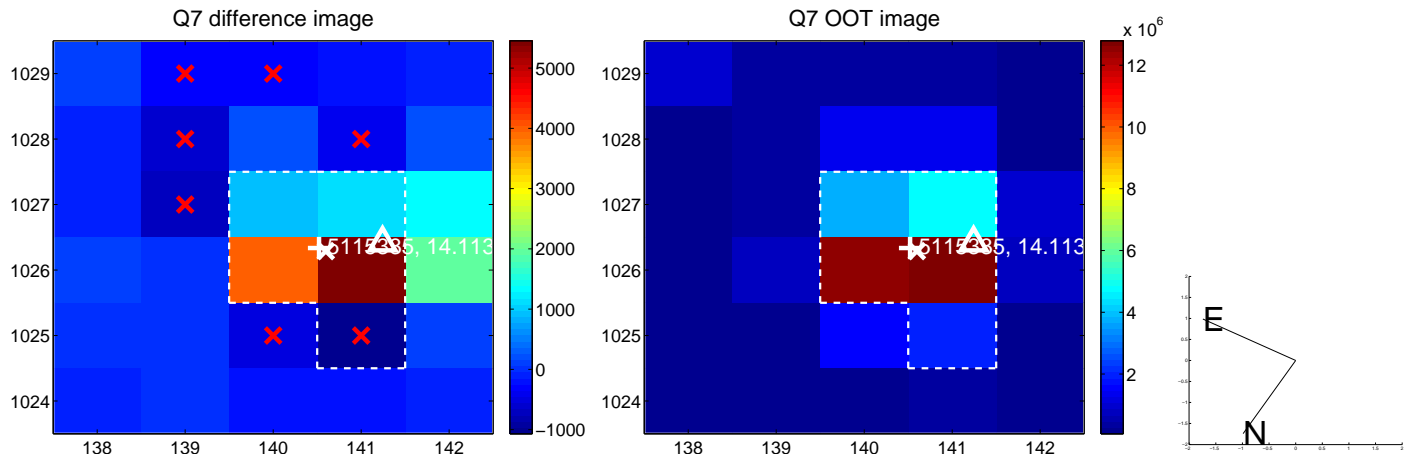
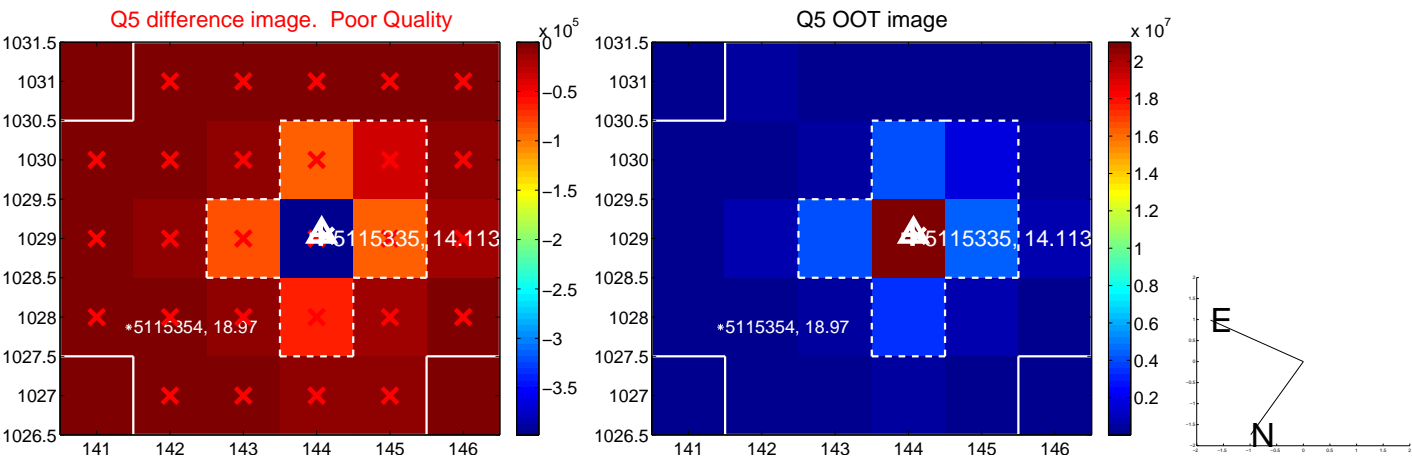


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

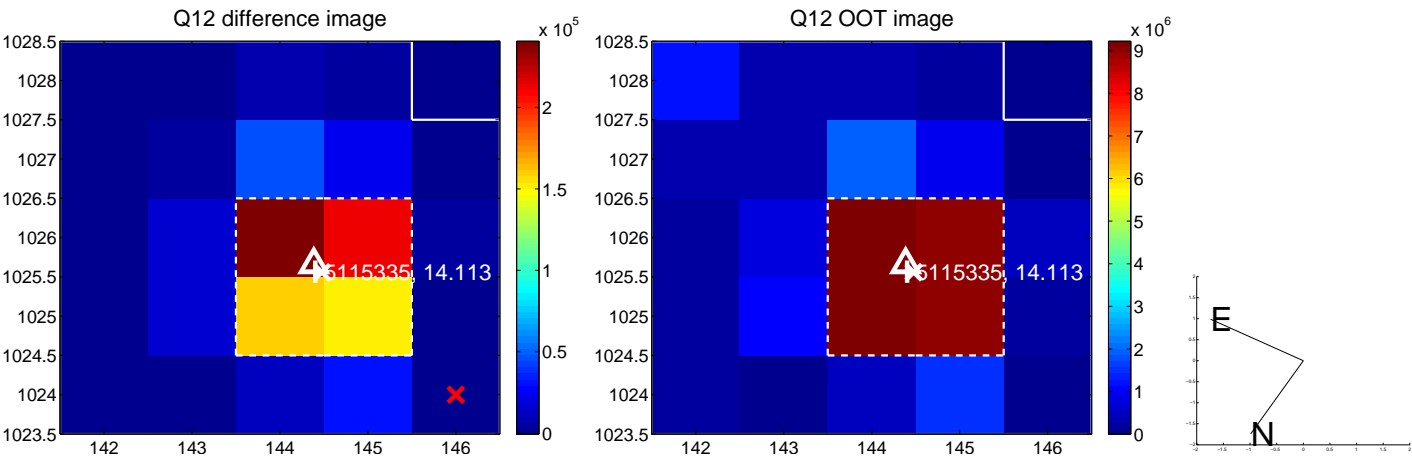
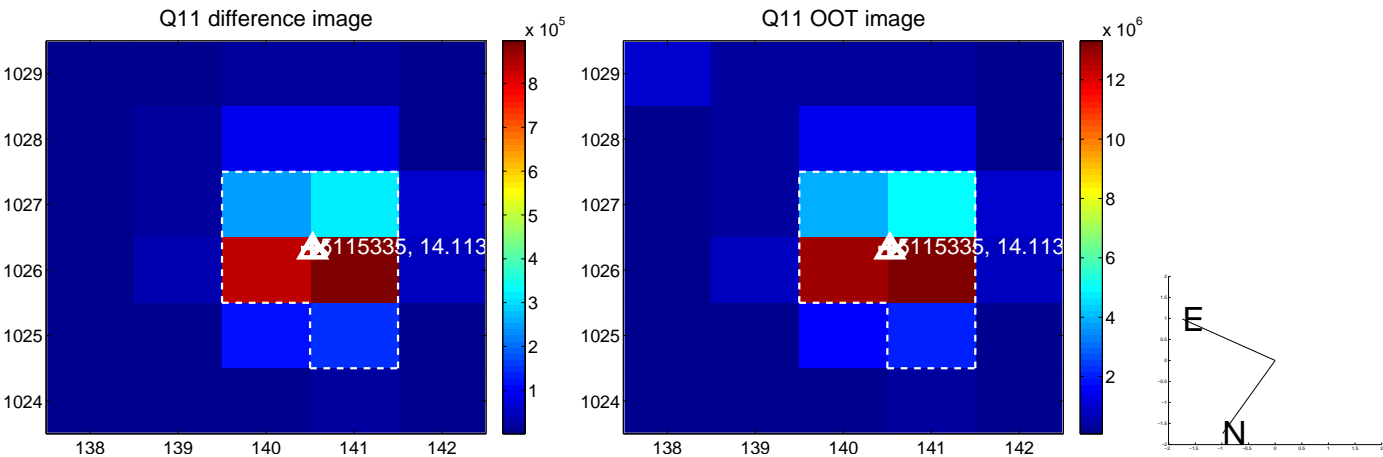
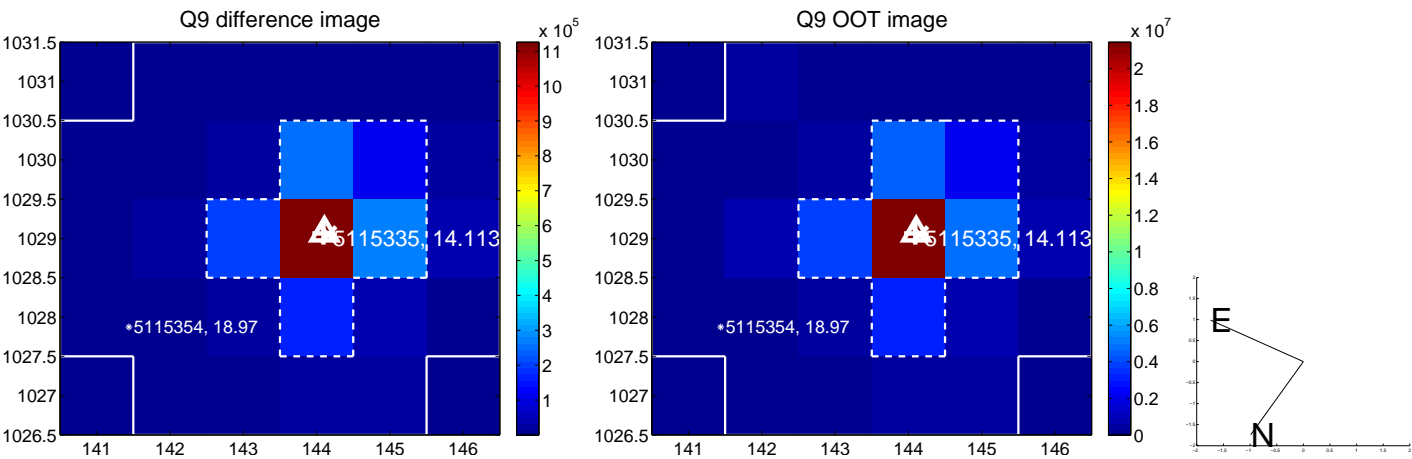
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



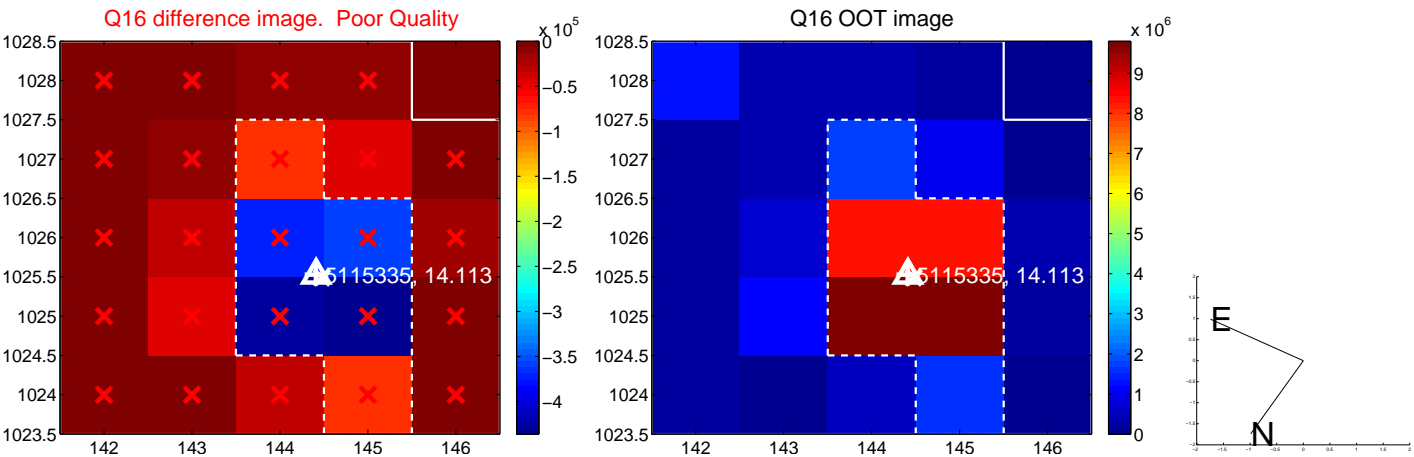
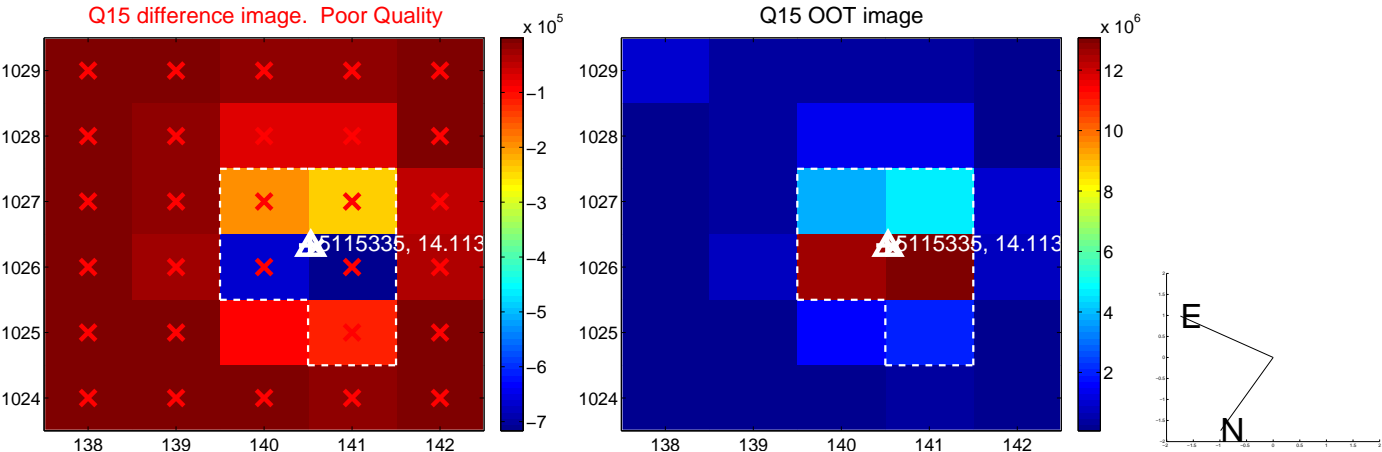
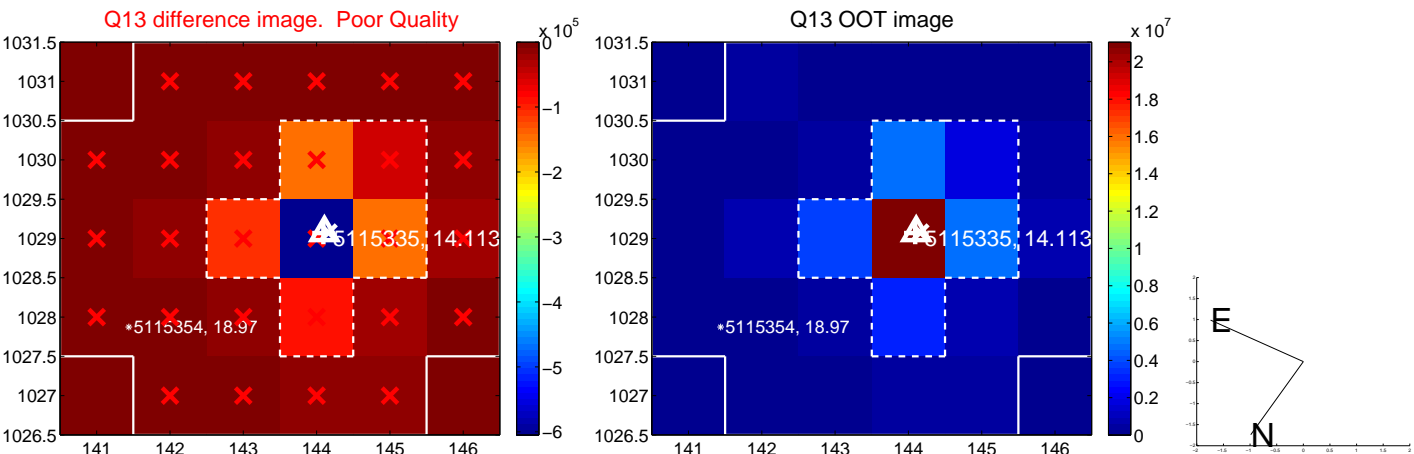
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



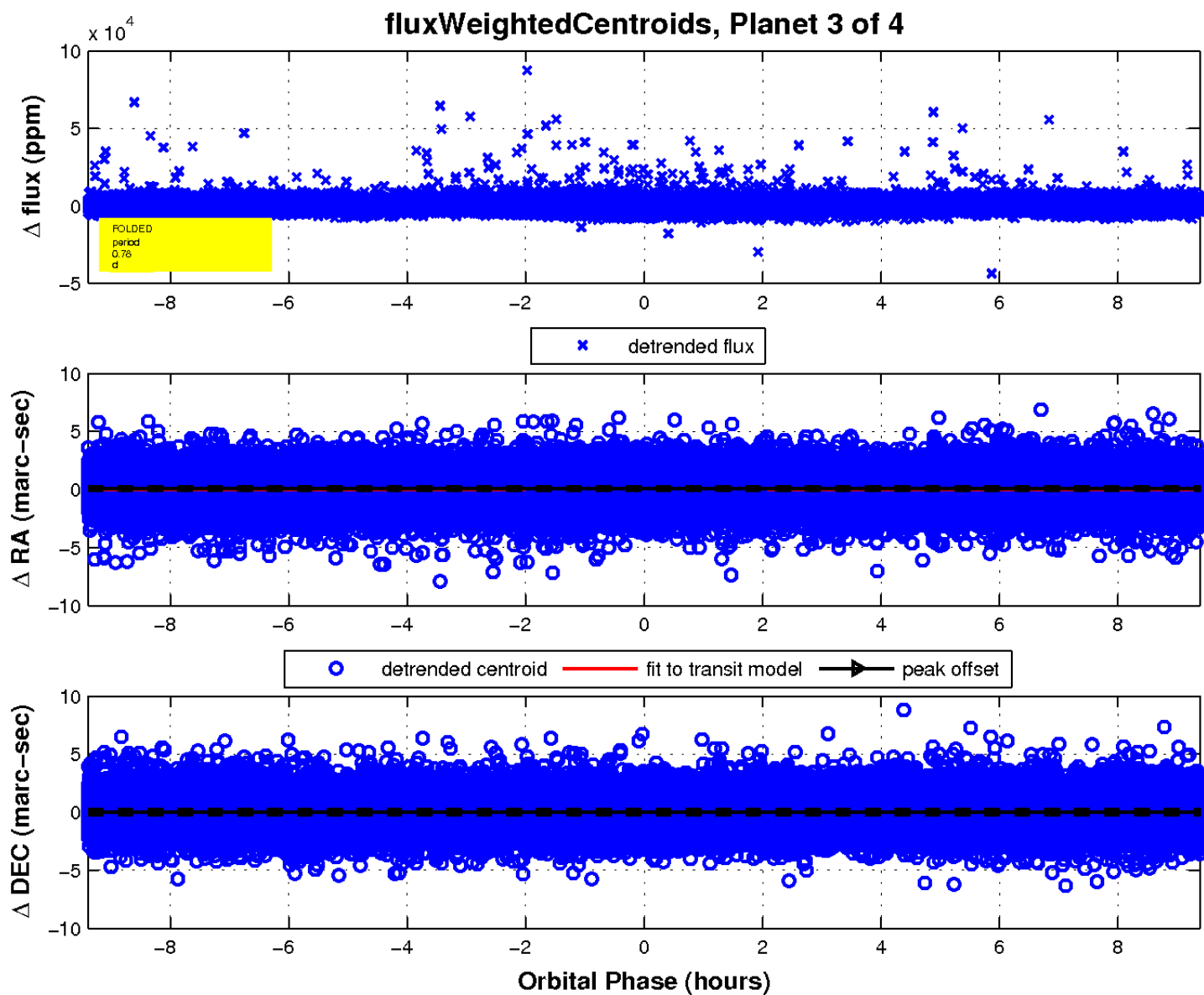
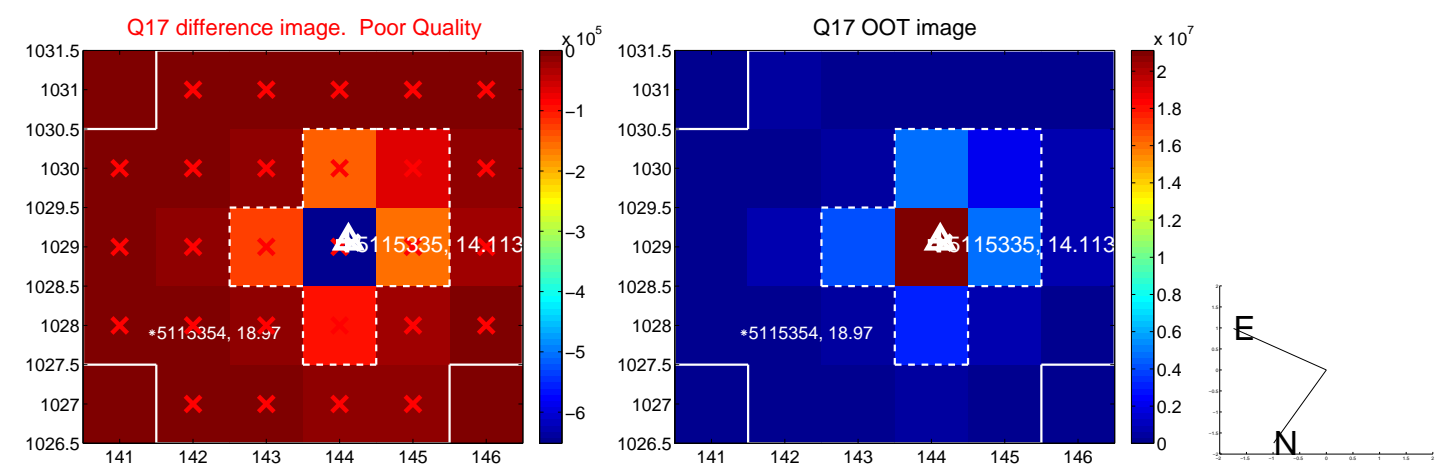
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



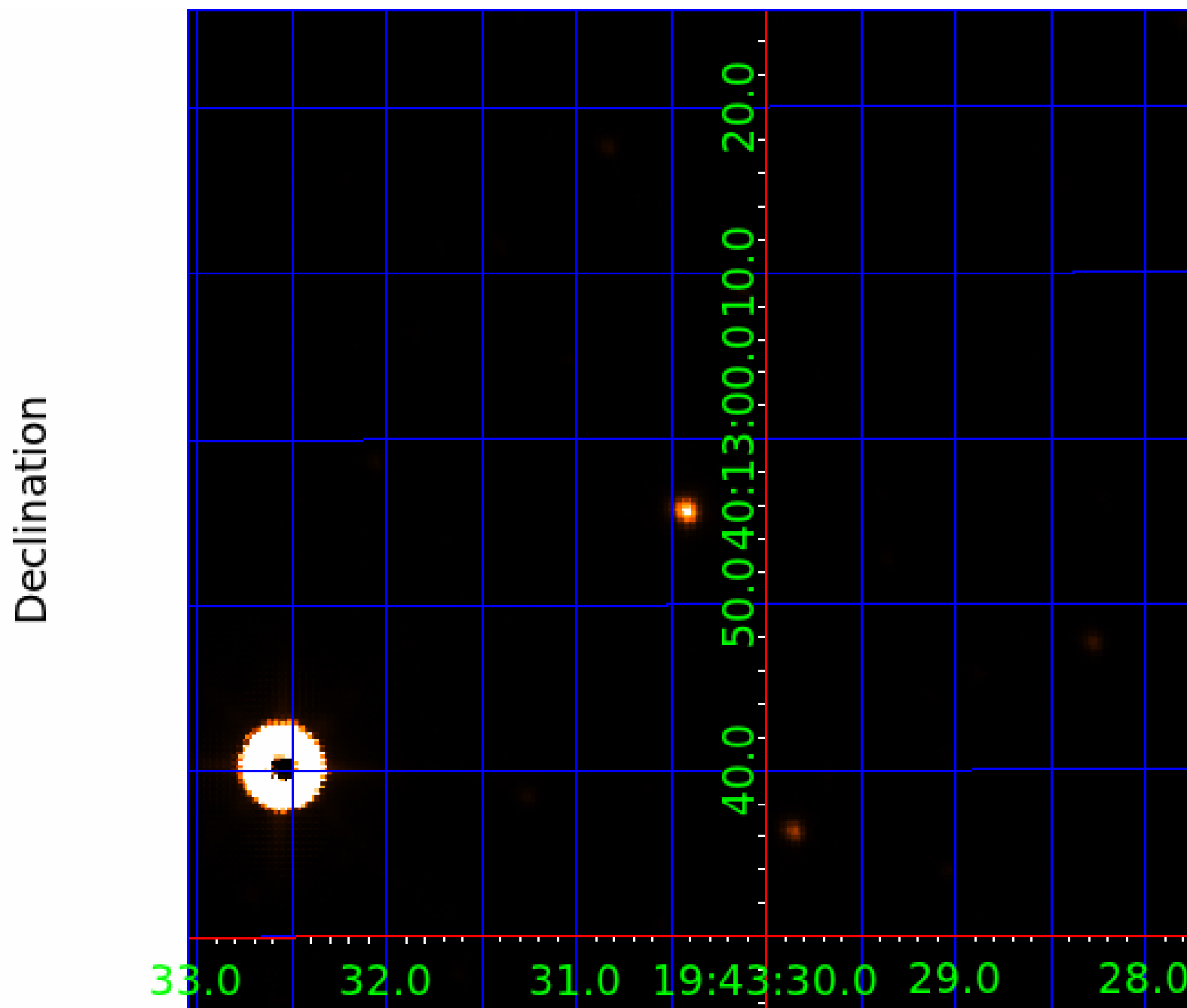
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image



KIC 005115335

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005115335-01	OBS	No	0.783192	131.849536	1440.6	2.500	12.4	-1.0	0.75	4495	2.70	901.30
005115335-02	OBS	No	0.781946	131.845337	337.8	2.601	10.4	8.5	0.75	4495	1.69	903.21
005115335-03	OBS	No	0.782575	132.065633	434.9	4.407	9.3	7.5	0.75	4495	1.48	902.25
005115335-04	OBS	No	0.780326	132.189119	640.4	1.500	7.1	-1.0	0.75	4495	1.81	905.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005115335-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
005115335-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005115335-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005115335-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

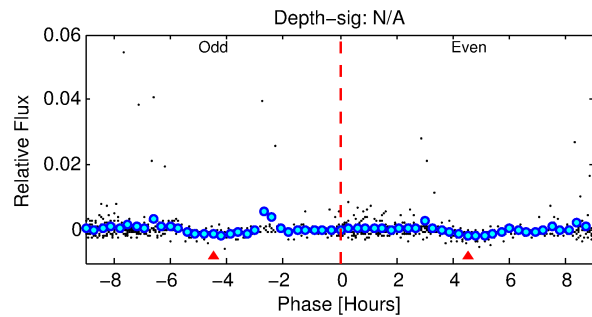
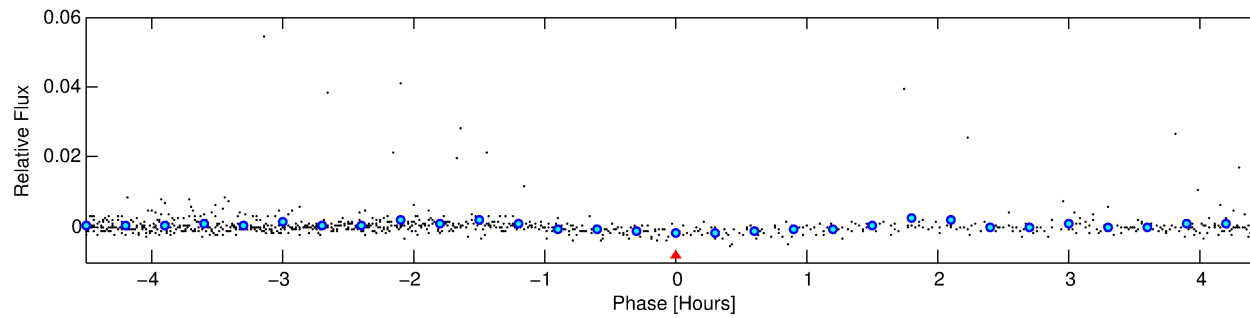
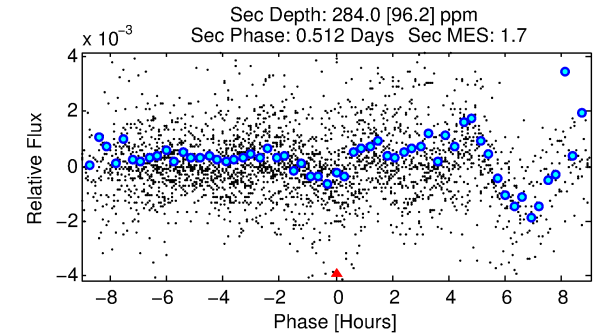
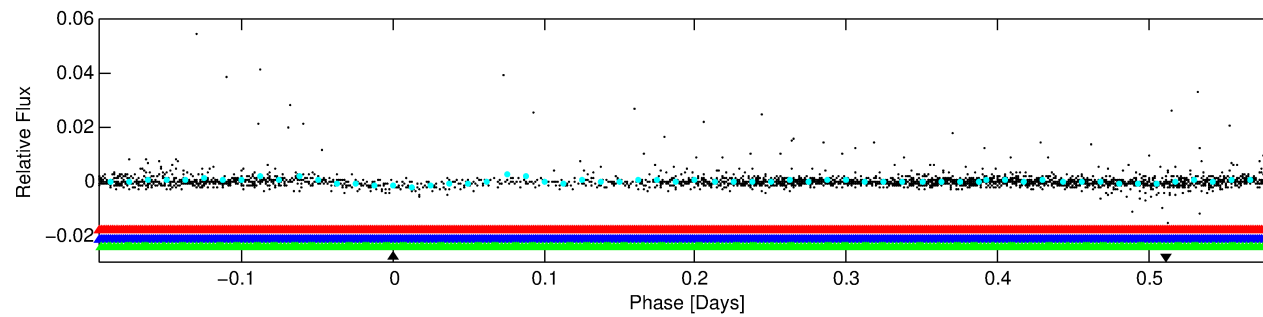
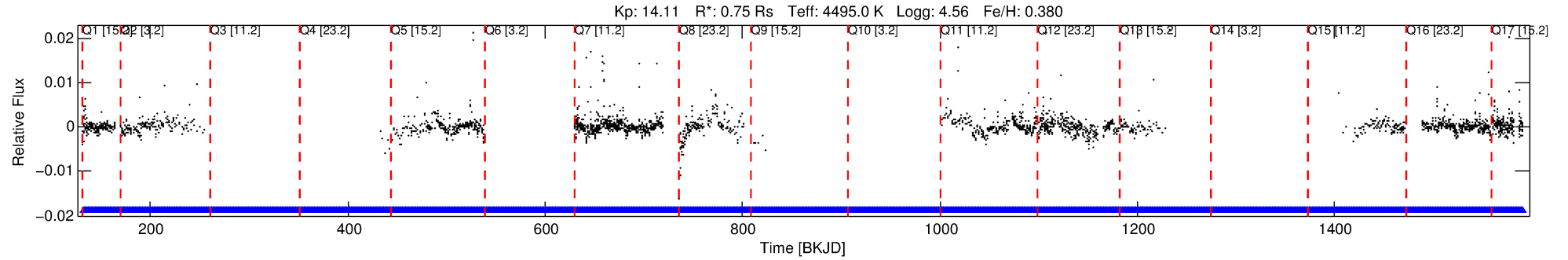
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005115335-04

No Significant Match Found

DV One-Page Summary

KIC: 5115335 Candidate: 4 of 4 Period: 0.780 d



TPS TCE Results:

Period = 0.78033 d
Epoch = 132.1891 BKJD

DV fit results are unavailable

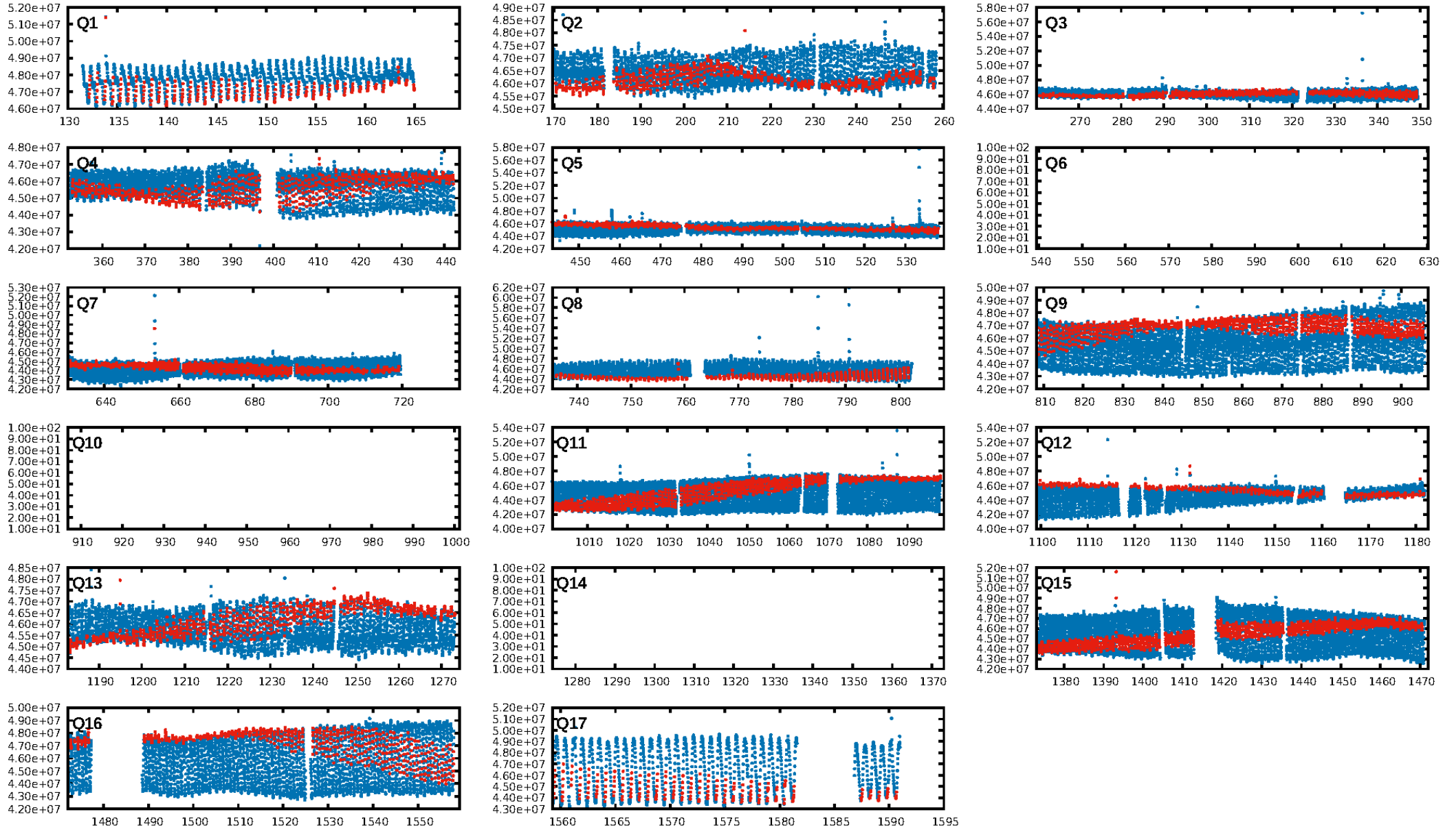
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 1.0% [0.01σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

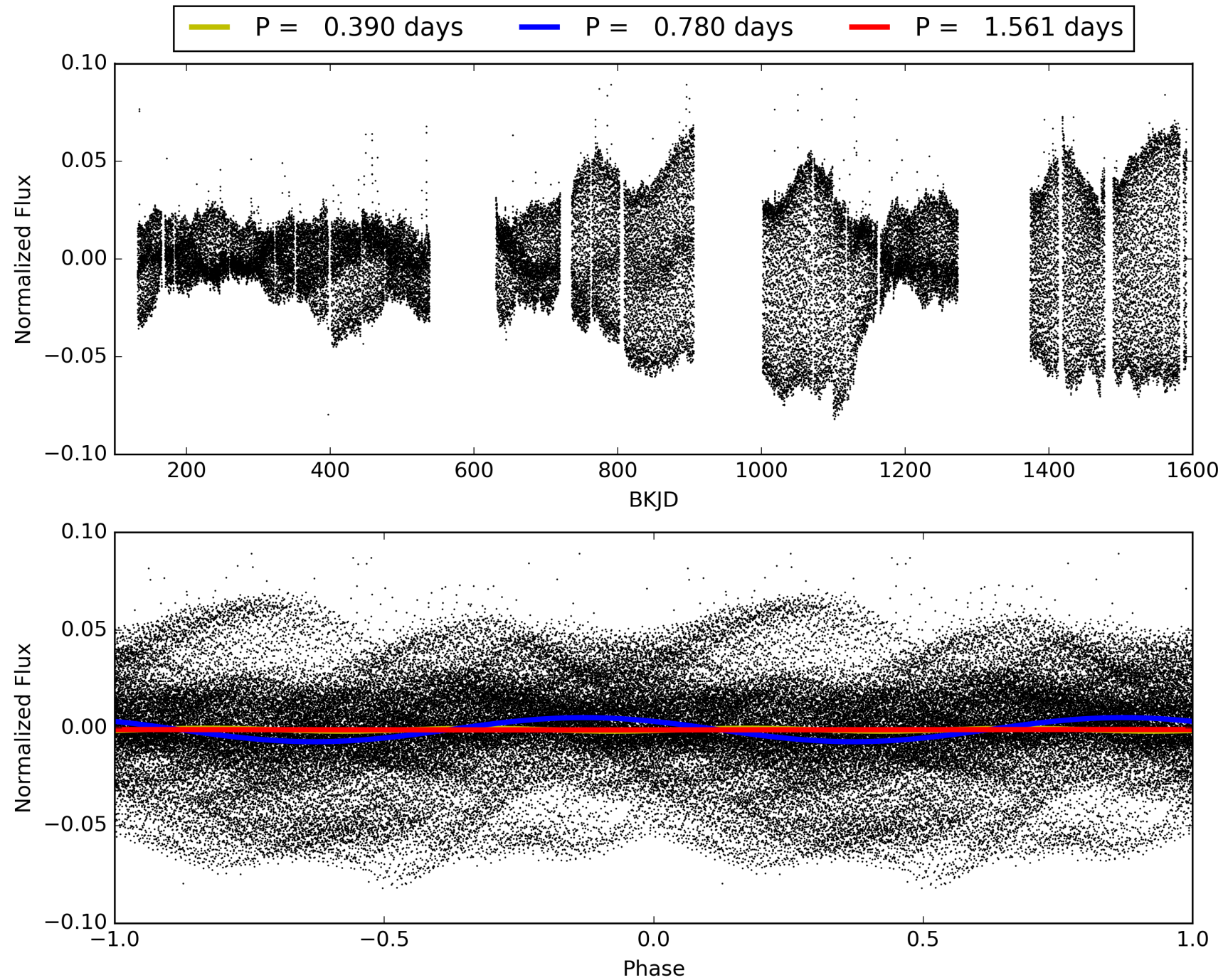
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:59:47 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005115335-04, PDC Light Curves

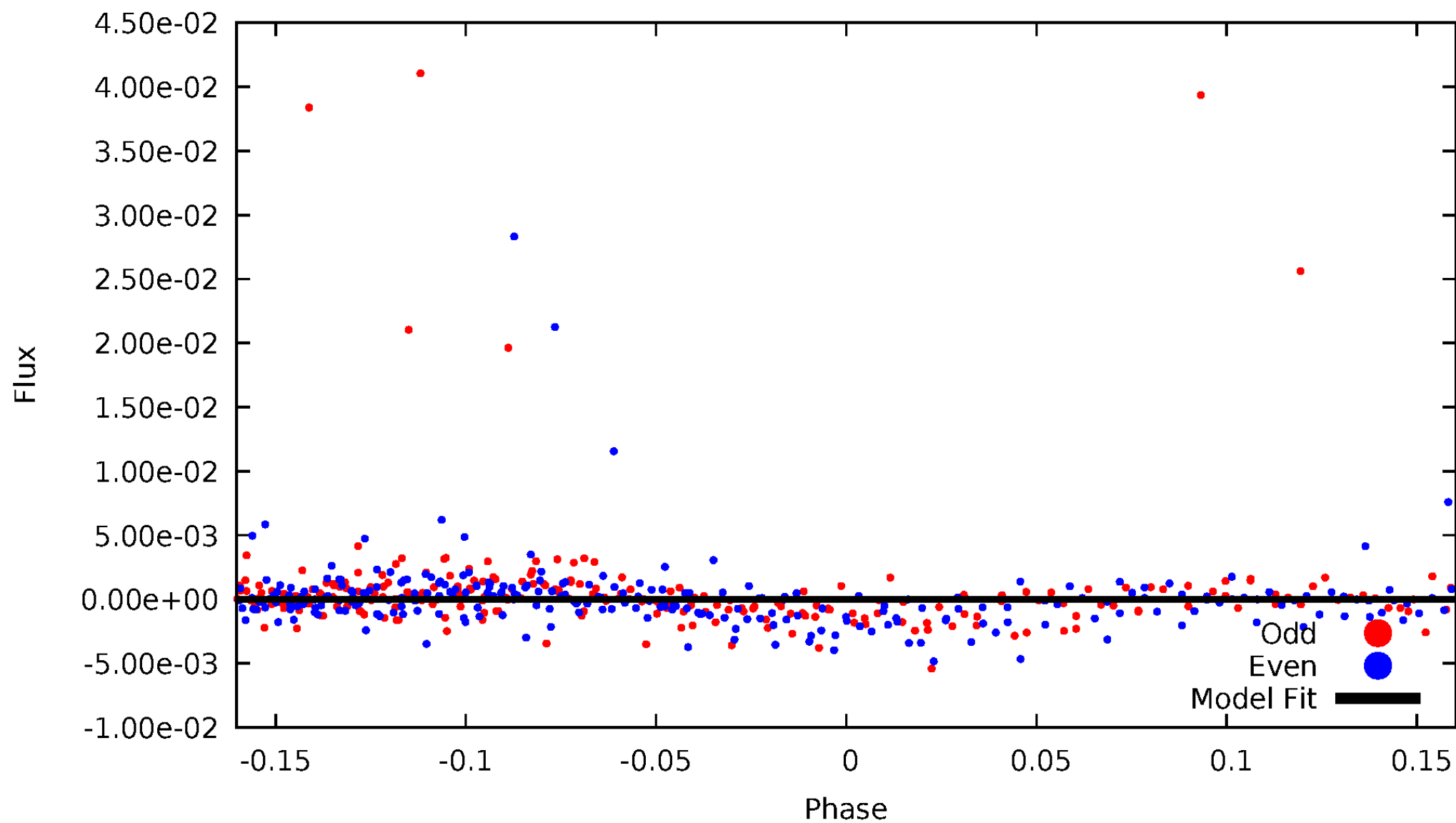


TCE 005115335-04



DV Odd/Even

TCE 005115335-04

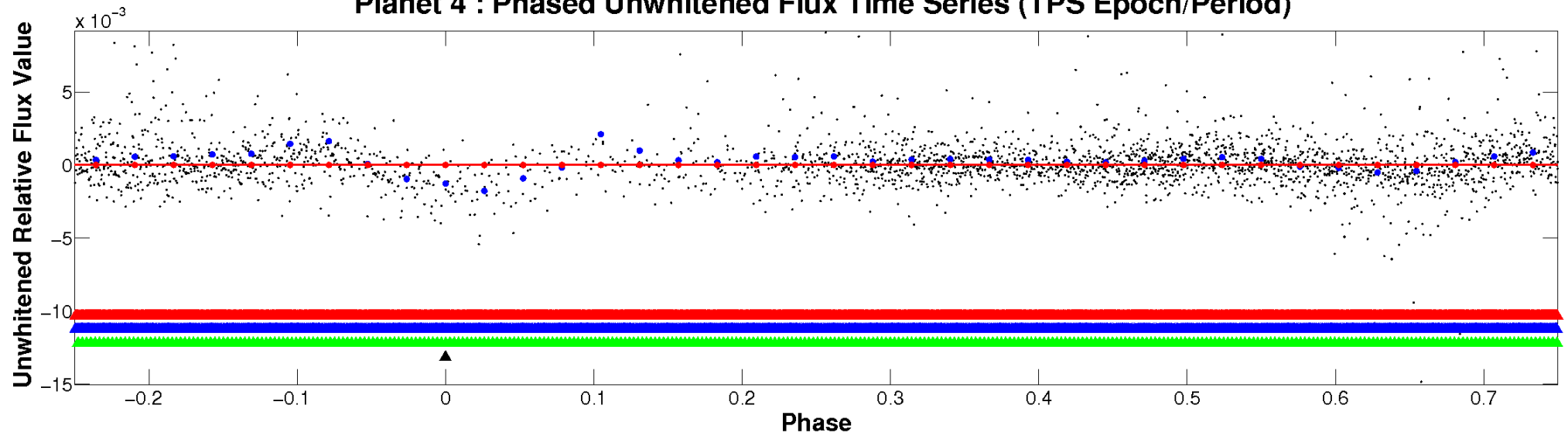


ALT Odd/Even

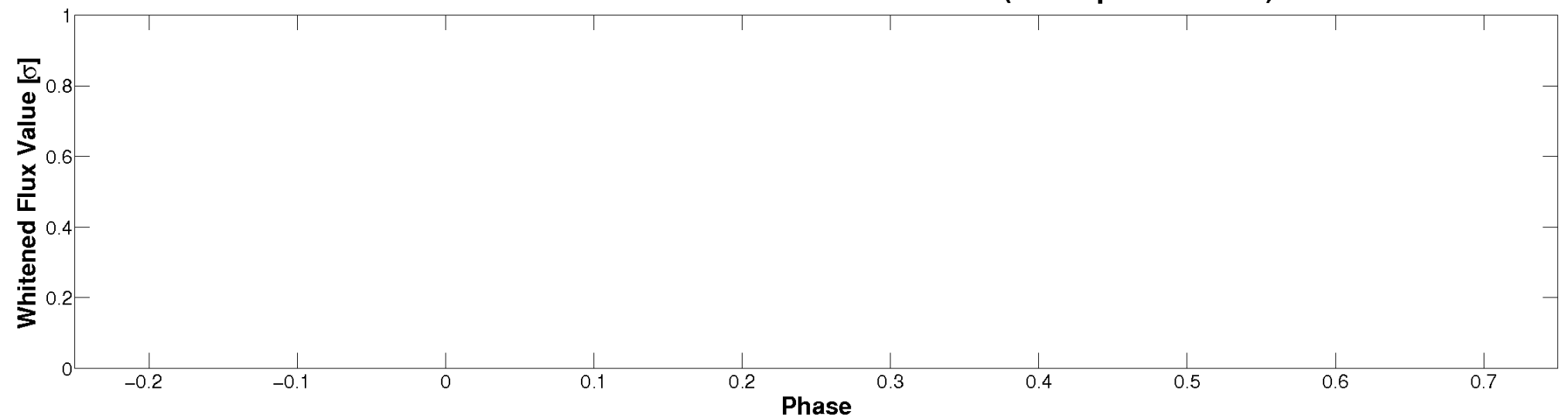
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

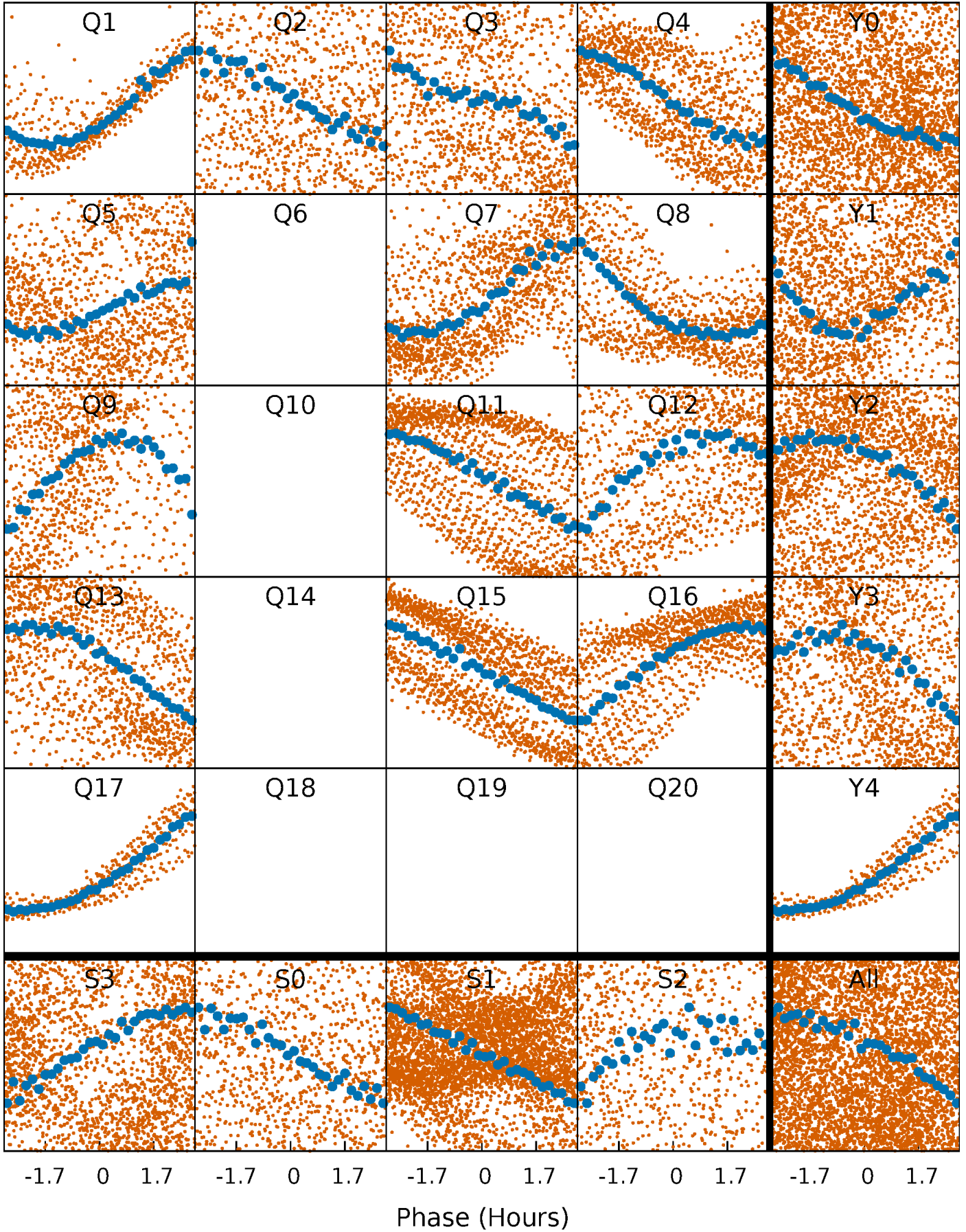


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 005115335-04 $P = 0.780326$ Days $T_0 = 132.189119$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005115335-04 $P = 0.780326$ Days $T_0 = 132.189119$ (BKJD)

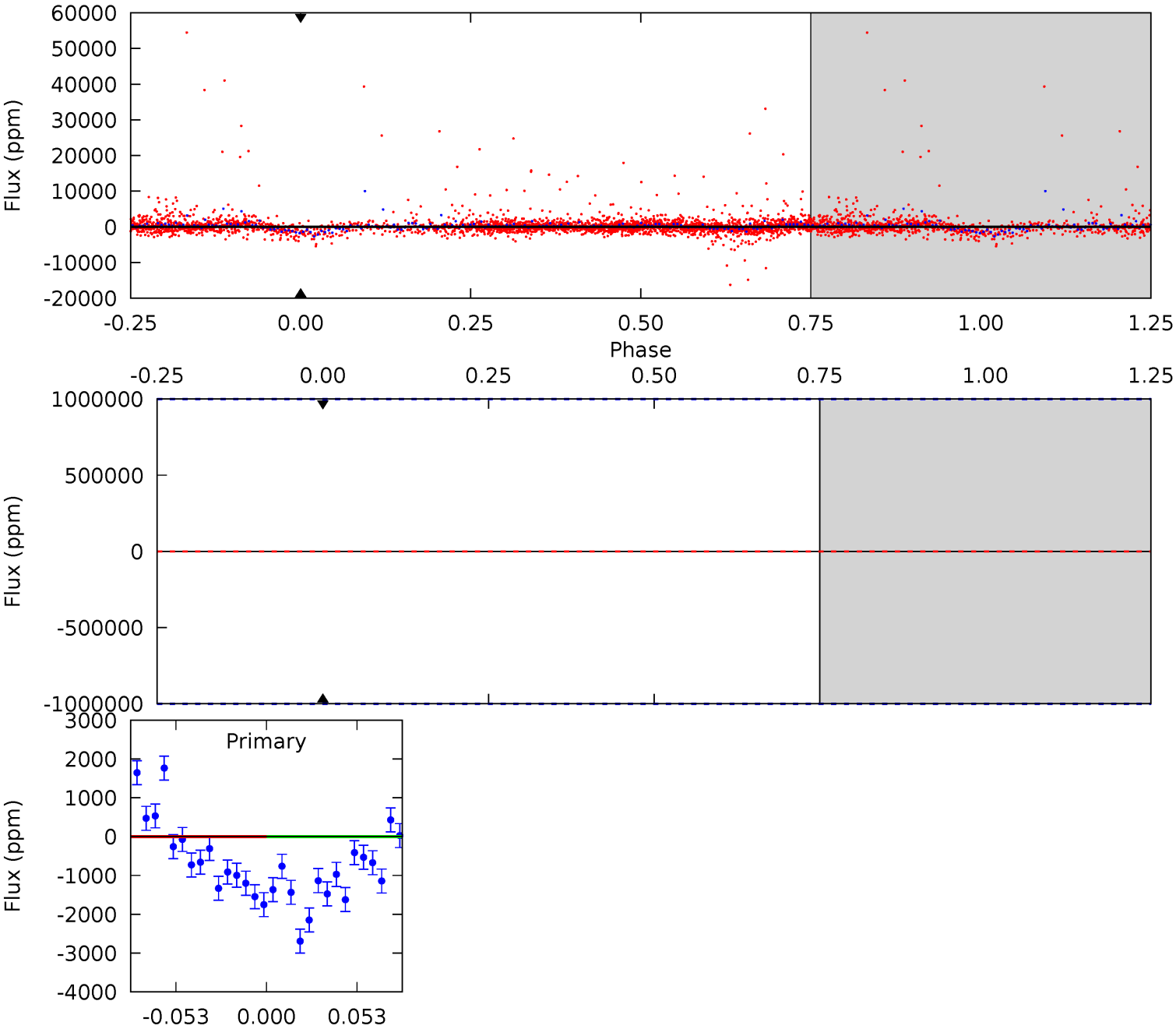


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005115335-04, P = 0.780326 Days, E = 131.408793 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005115335

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4495^{+159}_{-159}	$4.561^{+0.059}_{-0.023}$	$0.380^{+0.050}_{-0.300}$	$0.747^{+0.026}_{-0.066}$	$0.741^{+0.043}_{-0.048}$	$2.502^{+0.637}_{-0.195}$
	+4%/-4%	+1%/-1%	+13%/-79%	+3%/-9%	+6%/-6%	+25%/-8%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005115335-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$6.04^{+6.40}_{-4.06}$	1941^{+77}_{-76}	2737^{+10368}_{-13747}	$1.263^{+790.786}_{-531.476}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

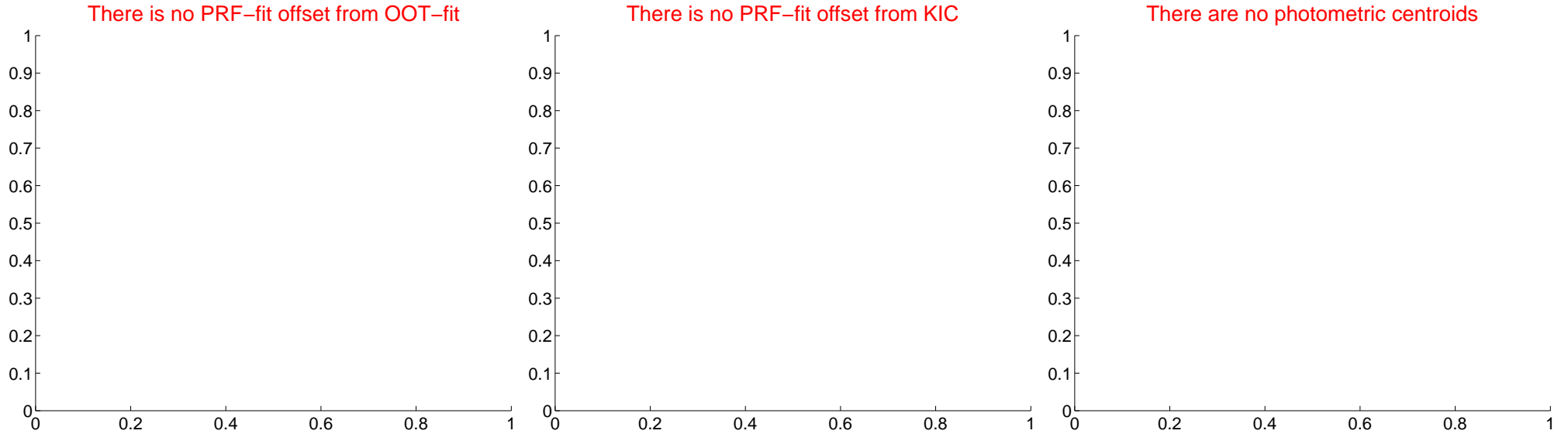
DV Centroid Data

Supplemental centroid analysis for 005115335-04. Kepler magnitude: 14.11. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



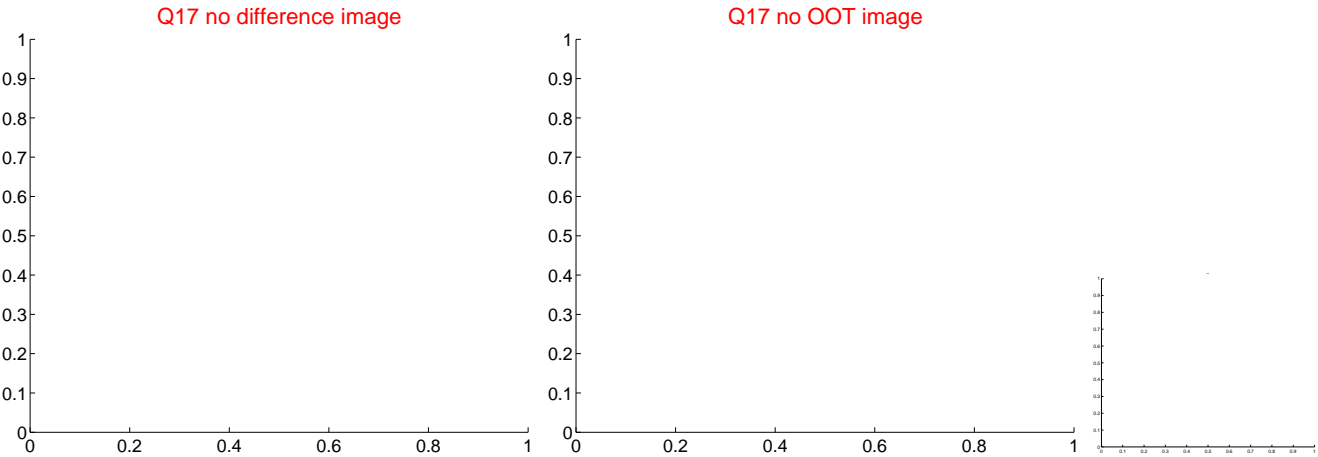
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

